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CONSERVATION ELEMENT



SISKIYOU COUNTY GENERAL PLAN

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RESOLUTION NO. 214 - BOOK 5

RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF SISKIYOU, STATE OF CALIFORNIA, ADOPTING A CONSERVATION ELEMENT OF THE SISKIYOU COUNTY GENERAL PLAN FOR SAID COUNTY.


WHEREAS, the Siskiyou County Planning Commission by its Resolution No. 1973-5 did on the 6th day of June, 1973, adopt a proposed Conservation Element for the Siskiyou County General Plan, and did recommend that the Board of Supervisors adopt said element as part of the Siskiyou County General Plan, and

WHEREAS, this Board of Supervisors did on the 12th day of June, 1973, hold a public hearing thereon, notice thereof having been given as prescribed by law and at which time all interested persons were afforded opportunity to be heard thereon, and

WHEREAS, all comments, requests and suggestions received at said hearing were given due and deliberate consideration in connection with the objectives and purposes of said proposed element, now

THEREFORE BE IT RESOLVED, by the Board of Supervisors of the County of Siskiyou, State of California in regular session assembled this 12th day of June, 1973, that the Conservation Element of the Siskiyou County General Plan be and is hereby adopted as a part of the General Plan for Siskiyou County, and

BE IT FURTHER RESOLVED, that the Planning Director is directed and authorized to certify the Conservation Element to any concerned agencies.



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RESOLUTION OF THE PLANNING COMMISSION OF THE
COUNTY OF SISKIYOU, APPROVING A CONSERVATION
ELEMENT OF THE SISKIYOU COUNTY GENERAL PLAN
FOR SISKIYOU COUNTY, STATE OF CALIFORNIA.

WHEREAS, this Commission did cause to be prepared a Conservation
Element of the General Plan for Siskiyou County, and

WHEREAS, in accordance with the provisions of law a public hear-
ing was held on the 11th day of June, 1979, notice having
been given in the time and manner specified by law
in which all interested persons were afforded opportunity
to be heard thereon, and

The foregoing resolution was introduced by Supervisor Torrey who
moved its adoption, seconded by Supervisor Hayden and adopted by
the following roll call vote:

AYES: Torrey, Belcastro, Hayden

NOES: Porterfield, Wacker

ABSENT: None

Whereupon the Chairman declared the above and foregoing resolu-
tion duly adopted and

SO ORDERED

/S/ Ernest A. Hayden
Chairman, Siskiyou County Board of
Supervisors

ATTEST: Norma Price, County Clerk

/S/ Rae Turbovsky
By Clerk of the Board of Supervisors

RESOLUTION NO. 1973-5

RESOLUTION OF THE PLANNING COMMISSION OF THE
COUNTY OF SISKIYOU, ADOPTING A CONSERVATION
ELEMENT OF THE SISKIYOU COUNTY GENERAL PLAN
FOR SISKIYOU COUNTY, STATE OF CALIFORNIA.

WHEREAS, this Commission did cause to be prepared a Conservation Element of the General Plan for Siskiyou County, and

WHEREAS, in accordance with the provision of law a public hearing was held on the 6th day of June, 1973, notice having been given in the time and manner specified by law in which all interested persons were afforded opportunity to be heard thereon, and

WHEREAS, an Environmental Impact Report was prepared and reviewed at the same public hearing, and

WHEREAS, no comments were received at the aforesaid hearing protesting the Conservation Element of the Siskiyou County Plan, now

THEREFORE BE IT RESOLVED, by the Siskiyou County Planning Commission in regular session this 6th day of June, 1973, that this document entitled Conservation Element General Plan for Siskiyou County be ~~and is~~ hereby adopted, and

BE IT FURTHER RESOLVED, that this Commission recommends that the Board of Supervisors of the County of Siskiyou hold a public hearing thereon in the manner prescribed by law and do adopt said Conservation Element of the Siskiyou County General Plan.

The foregoing resolution was introduced by Commissioner Weller, who moved its adoption, seconded by Commissioner Hanna and adopted by the following roll call vote:

AYES: Weller, Hanna, Lange, Radcliffe, Heidewald, Martin, Cannon, Hillery

NOES: None

ABSENT: Wilson

Whereupon the Chairman declared the above and foregoing resolution duly adopted and

SO ORDERED

/S/ Wm Heidewald
Chairman, Siskiyou County Planning
Commission

ATTEST:

/S/ Gene Kincaid
Secretary, Siskiyou County Planning
Commission

SISKIYOU COUNTY
CONSERVATION ELEMENT
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June 1973

Siskiyou County
Planning Department

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CONSERVATION ELEMENT
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CONSERVATION ELEMENT

SISKIYOU COUNTY

1. SUMMARY AND OBJECTIVES

The Conservation Element is defined in Section 65302 (d) of the Government Code, it states that the Conservation Element is for the conservation and development and utilization of natural resources including water and its hydraulic force, forest, soils, rivers and other water areas, including harbors, fisheries and wildlife habitat. It also includes other wildlife habitat, mineral and other natural resources.

The plan may also cover such subjects as:

1. Reclamation of land and waters.
2. Flood control.
3. Prevention and control of the pollution of streams and other bodies of water.
4. Regulation of land and stream channels and other areas required for the accomplishment of the plan.
5. Prevention, control, and correction of erosion of soils, beaches and shrubs.
6. Protection of watersheds.
7. Location, quantity and quality of rocks, sand and gravel resources.

Conservation and environmental issues are two types:

1. Those which are central and basic that they

pervade nearly every functional aspect of conservation and resource management.

2. Those that relate more specifically to the following functional aspects:

- A. Land resources including forests, soils, wildlife, minerals, other natural resources, land and water reclamation, flood control, and erosion control.
- B. Water resources, which include all of the former, and in addition water resources, rivers and lakes, flood control, water pollution, regulation in streams.
- C. Air resources which includes climatic resources, forests, soils, rivers and lakes, and fisheries, wildlife, minerals, other resources, land and water reclamation and erosion control.
- D. Biological resources which include all of the elements under "A" Land Resources with emphasis on plant life and animal life.

Land resources as described above are one of the prime assets of Siskiyou County. It is imperative that this resource be protected and that good conservation practices be employed throughout the county. The first objective of the Conservation Element is, therefore: To conserve and protect the land resources of Siskiyou County.

*SISKIYOU
COUNTY*

VICINITY MAP



Water resources are also important as an amenity of Siskiyou County, as well as a source of potable and irrigation water, it also supplies a priceless recreational asset. The prime objective in the conservation of water resources is: To protect and conserve the lakes, streams and reservoirs of the county of potable and agricultural water, for recreation areas but more important as wildlife habitat which will be beneficial to the residents, present and future of Siskiyou County and the State.

Clean air of Siskiyou County is also a priceless asset. Simply defined, air pollution is caused by release of waste into the air in a faster rate than the air can cleanse itself. Man is not solely responsible for air pollution, many substances contribute to what might be called "natural" pollution of the air including wind blown from soil, volcanic dust and ash, viruses, bacteria and spores. Major sources of air pollution and its contributions are roughly as follows: Lumber Industry 61.5%, Motorized Vehicles 27.8%, Agriculture .5% and other sources 10.2%. The prime objective is to preserve the air quality of Siskiyou County so that it will continue to be one of the prime assets of the County for both human and animal population.

The biological resources of the County include habitat or the preservation of fish and wildlife species, as well as plant life. The present environment of Siskiyou County includes such habitat and preservation should have a high priority. The objective of this section is to conserve and maintain habitat for wildlife species and plant life.

The County presently has an Open Space Plan which has as its objectives the protection, preservation of open space, including agricultural lands, recreational lands and habitat for fish, wildlife and plant life.

Existing in the Siskiyou County General Plan are plans for Water Supply and Sewage Disposal and a Recreation Element, both of which recognize the importance of the conservation of the resources of the county. Unfortunately, many of the human activities on the shoreline of the lakes and streams, as well as the mountain sides are detrimental to the environment. The protection and conservation of the lakes, streams and mountain environment are an important objective of the present plans of the county. Among the land resources of the county, forestry must be considered the primary resource, however, there are other resources such as agriculture, minerals, and an abundant supply of wildlife. The water resources of the county are bountiful yet it is realized that this is a resource that must be carefully protected. Siskiyou County has both north and south draining watersheds, six major rivers, many streams and a variety of lakes, from small ponds to major recreation areas. Steps must be taken to protect and develop these water resources for future needs and use.

The Conservation Plan is a compilation of the foregoing statements indicating the objectives of the county to conserve and protect land, water, air and biological resources.

As in the Open Space Plan, there are a number of ways

to implement the Conservation Plan - many of which are being utilized by Siskiyou County with good results. These methods of implementation include:

1. Flood Plain Zoning: Primary and secondary flood plain districts are presently included in the county's zoning ordinance and some areas are so zoned.
2. Subdivision regulations which protect the county's resources through: Soils investigations, control of sewage disposal, approval of the source and quality of water, protection of wildlife habitat on both land and water, flood control regulations, mandatory setbacks from streams and lakes where septic tank disposal is proposed, control of erosion by planting.
3. Open Space Plan and Recreation Plan: Plans for preserving open space through passive and active recreation areas maintained by Federal, State and Local government.

Private open space development has been encouraged and will add usable open space in the county through use of land for golf courses, hunting preserves, private campgrounds and other such uses.

II. CONSERVATION - GENERAL

A. State Conservation Element Requirements

As stated previously, Section 65302 (d) clearly sets forth the intent of the Legislature in adopting Con-

servation Element requirements. The Conservation Element must include a plan for the conservation, and development and utilization of the following as being mandatory:

1. Water
2. Forest
3. Soils
4. Rivers and Waters
5. Harbors
6. Fisheries
7. Wildlife
8. Minerals
9. Other natural resources

Components that are permissive as far as inclusion in the Conservation Element are:

1. Land and Water Reclamation
2. Flood Control
3. Water Pollution, prevention and control
4. Regulation of the use of land in the stream channels and other areas.
5. Protection, control and correction of erosion of soils, beaches and shores.
6. Protection of watersheds
7. The location, quantity and quality of rock, sand, and gravel resources.

Section 65302 (d) was amended to require that a conservation element shall be prepared and adopted no later than June 30, 1973.

That portion of the conservation element including waters shall be developed in coordination with any county water agency and with all district and city agencies which have developed, served, controlled or conserved water for any purpose for the county or city for which the plan is prepared.

B. Other Laws Related to a Conservation Element

There are currently many other laws which are directly related to conservation, they are as follows:

1. State Subdivision Map Act

Under the Subdivision Map Act the authority over design and layout of subdivisions is generally vested in local government bodies. Local government has the responsibility of approving tentative and final subdivision maps.

2. State Subdivided Lands Act

The Subdivided Lands Act, administered by the Department of Real Estate, is concerned with consumer protection. Before a developer can sell a subdivision lot, he must obtain a public report from the Real Estate Commission. This report informs prospective buyers about their rights and obligations, the provision, if any, that has been made for public utilities, warns of hazards, and provides other useful information.

3. Environmental Quality Act of 1970

The legislative policy and Environmental Quality Act of 1970 requires that it is the policy of the State to "take all action necessary to provide the people of the State with clean water and air, enjoyment of the aesthetic, natural, scenic and historical environmental qualities, and freedom from excessive noise."

In addition it declares that it is the policy of the State to "create and maintain conditions under which man and nature can exist in productive harmony to fulfill both social and economic requirements of present and future generations."

In the implementation of this policy state agencies, boards and commissions, and local agencies are required to prepare and submit environmental impact reports on significant federal, state and local projects.

4. Office of Planning and Research

This office was established to assist in the formulation, evaluation, up-dating of long range goals and policies for land use, population growth and distribution, urban expansion, open space, resource preservation and utilization. Environmental goals and

land use policy to be developed by this office will be a major step toward programming urban developments so as to protect the environmental quality in the state.

5. Land Conservation Act of 1965 (Williamson Act)

As stated in the Open Space Plan the Williamson Act was designed to aid land owners who desire to continue farming by establishing the the value of farm land for assessment purposes at rates compatible with agricultural land values.

This is accomplished by local government designating agricultural preserves and entering into at least ten-year annually renewable contracts or agreements with the land owners to hold the land in agricultural pursuits.

6. Water Quality Control Act

The Porter-Cologne Water Control Act of 1970 charges the State Water Resources Control Board with protecting the quality of all state waters for the beneficial uses and enjoyment of the people. In discharging this responsibility the Regional Boards have the authority to establish waste discharge requirements. Through the exercise of this authority the size, location, density, design and construction practices of urban

development are affected.

7. Fish and Game Laws

The State Fish and Game Code declares that the fish and game belong to the people of the state and charges the Department of Fish and Game with the responsibility for protection of these resources. In addition to regulating hunting and fishing, the Fish and Game Laws prohibit the destruction of fish and wildlife habitat.

These laws prohibit the pollution of the State's water by any material injurious to fish, plant or bird life. Sediment originating from any development would be considered such a pollutant.

Alteration of a stream or lakebed by public agencies or private individuals is prohibited until the Department is notified and makes recommendations for measures to protect fish and wildlife. The recommendations of the Department must be followed or disagreements submitted to an arbitrator. Vehicular crossings of stream beds are covered by this law.

8. Soil Conservation Provisions of the Public Resources Code

Soil conservation districts, organized under

Division 9 of the Public Resources Code, concern themselves with the prevention of erosion and control of water.

The Department of Conservation, acting through the State Soil Conservation Commission and the Division of Conservation administers the Soil Conservation Program at the state level. Working through Soil Conservation Districts at the local level, the state also assists local agencies on soil conservation matters, conducts special studies on soil and vegetation problems, develops plans for local projects for soil and water conservation.

9. Forest Practice Division of the Public Resources Code

A permit must be obtained from the State Forester for the conversion of timber land for purposes other than growing timber, such as urban development.

Erosion control measures specified in Forest Practice Rules apply to timber land conversion permits for urban use. If logging takes place, periodic inspections are made by the California Division of Forestry to check on the operator for compliance with the Forest Practice Rules.

10. Fire Prevention Provisions of the Public Resources Code

The Public Resources Code defines hazardous fire areas, restrictions on use, and minimum protection requirements, administration of which is carried out by the State Division of Forestry.

The Public Resources Code sets forth provisions for the reduction of fire hazards around buildings located on land which is covered with flammable material. A fire break of at least thirty (30) feet is required to be maintained around buildings by removing all flammable vegetation or other combustible growth. Additional widths of fire break may be required under extra hazardous conditions. Fire break clearance is also required around electric transmission poles and towers.

Burning is regulated by permits issued by the State Forester.

Provisions must be made to control erosion in areas where vegetation has been removed for fire breaks.

11. Local Laws.

The most important plans and ordinances that influence urbanization and its impact on conservation practices include the following:

1. General plans

2. Zoning ordinances
3. Subdivision ordinances
4. Grading ordinances

12. Federal Agencies

Federal agencies who's programs have the most significant relation to the impact of urbanization of lands are:

1. Soil Conservation Service (USDA)
2. Environmental Protection Agency

Soil Conservation Service

The Soil Conservation Service of the U.S. Department of Agriculture provides information and technical assistance to private land owners in soil conservation districts and state and local entities. While the assistance has been primarily concerned with the erosion control and agricultural land use through state-organized soil conservation districts, the Soil Conservation Service does assist local government in reviewing from a soil standpoint, county subdivision plans and proposals as well as other types of development.

This agency makes basic soil surveys and provides soil maps which should be the foundation of local land use plans. In addition, generalized interpretive maps are provided showing critical areas of soil erosion, soil shrink-swell behavior, land capability, suitability for septic tanks and many other interpretations that are useful.

Environmental Protection Agency

The urgency for cleaning up streams, lakes and

other water areas requires more finances than the local agency's area will provide. The Federal Water Pollution Control Act provides funding for projects important to environmental aspects of urbanization.

Through the Environmental Protection Agency, communities can get financial help in the construction of municipal waste treatment plants with a federal grant of at least 30% of construction costs. The federal share may be higher under certain conditions, such as when more quality standards in comprehensive basic compliance have been developed.

C. The Need for Conservation

Urbanization is occurring throughout many areas in Siskiyou County. There are subdivisions being approved both in the basin and the mountain areas throughout the county each year. There is also evidence of land being developed by lot splitting.

Frequently natural resources are not adequately considered in determining the suitability of land per urban type development and in regulation development. This results in detrimental impacts on the soil mantle and the vegetative cover and other environmental factors. Problems are created not only at the site of the development but also in adjacent areas.

To prevent further degradation of the environment, legislation and administrative actions are necessary at both the state and local levels. Local

government must develop and implement improved techniques to effectively plan and regulate development of lands within the county and to protect the soil mantle and vegetative covering.

Conservation means:

1. To identify, to assess, and quantify the impact of urbanization on the soil, vegetation and related environmental factors.
2. To educate the public on the environmental consequences of urbanization throughout the county through documentation of facts and illustrate methods of preserving environmental amenities.
3. To identify and assess federal, state and local regulations and their enforcement as they relate to impacts of development on the environment.
4. To make regulations which would minimize the detrimental impact of development on soil and vegetation.
5. To encourage erosion control techniques which local agencies may employ to prevent or minimize erosion.

D. Apathy to Conservation Practices

As described in the Open Space Plan, today, the flow from metropolitan areas are to the more rural county's governmental policies have not encouraged conservation practices; therefore, urban

sprawl, the automobile and the influx of people have caused detrimental environmental impacts.

Major factors of urbanization causing environmental impacts are:

1. Removal or damage of vegetation on construction sites.
2. Grading of land for homesites, roads and utilities.
3. Alteration of natural drainage patterns.
4. Creation of impervious surfaces by construction of roads, parking areas and homes.
5. Pre-emption of land use.
6. Introduction of people and vehicles.
7. Disposal of solid and liquid waste.

Detrimental environmental impacts from urbanization are:

1. Accelerated erosion and sedimentation.
2. Loss of vegetable cover.
3. Polluted water.
4. Loss of fish and wildlife habitat.
5. Over-use of recreational areas.
6. Diminished surface water.
7. Reduced ground water recharge.
8. Increased flood hazard.
9. Dimished grazing and timber lands.
10. Greater fire hazard.
11. Lack of access to public lands, streams

and lakes.

12. Intensified air pollution.

There is considerable opposition to establishment of strict environmental and conservation and conservation practices because they run counter to providing areas for urban developments and excessive concentration of people in the foothill and mountain areas.

E. Coordination with Other Agencies

It is an absolute necessity that the various departments of Siskiyou County coordinate their planning decisions. It is also an absolute necessity that Siskiyou County coordinate its decisions with other levels of government.

Coordination will be in accordance with the U.S. Forest Service, the California Division of Forestry, the U.S. Soil Conservation Service, The Bureau of Land Management, The Department of Fish and Game and with the Countywide Water Agency and with all District and City Agencies.

F. Coordination Between the City and County

Although the County government is responsible for all unincorporated lands, it should also be its responsibility to serve as a recommending and coordinating agency in conservation matters. The cities will ultimately establish their own conservation element; but close coordination between the Cities and County will result in the framework of harmonious conservation practices close to city limits.

III. CONSERVATION AND ENVIRONMENTAL CONSIDERATIONS



A. Background

Siskiyou County, the middle of the three most northerly California counties, borders on the State of Oregon for over 100 miles in an eastwest direction. In a north-south direction, the county ranges from 60 to 70 miles. Bordered on the east by Modoc County, on the west by Humboldt and Del Norte counties and on the south by Shasta and Trinity Counties, Siskiyou County was created by the legislature in 1852, from the northern part of Shasta County and a portion of what had previously been Klamath County. The County contains 6,300 square miles of land and is the fifth largest county in the State, and the largest in Northern California. The county contains all or part of five **National Forests**—Rogue, Shasta, Trinity, Klamath, Modoc, and Six Rivers. Nearly 63% of the land area is in public ownership. The county lies astride the California-Oregon Trail, where the stage coach and freight wagons once traveled between Sacramento and Columbia River Valleys. This old route has now become much of the location of modern Interstate Highway 5, a main link between California and the Pacific Northwest. When the railroad replaced the stagecoach and freight wagon, it followed a similar route through the center of the county.

The Sacramento River headwaters are located in Siskiyou County, which also contains a large portion of another major river system, that of the Klamath River.

B. Climate and Weather

Due to the land area involved and the diversity of topography, the climate of Siskiyou County exhibits considerable change. In the valleys, warm summer days, cool summer nights and mild winters are to be expected. The higher elevations can be expected to have cool summers and heavy winters. The western portion of the county, due to its proximity to the Pacific Ocean, experiences substantial precipitation and humidity which declines to the east, culminating in a continental like climate in the eastern portion of the county with greater temperature variation and lesser precipitation. Rainfall varies from 50 inches at lower elevations along the westerly boundary to 10 inches along the east boundary. Higher elevations in the western portion may receive as much as 60 inches of annual rainfall. Intermediate elevations receive from 20 to 30 inches of snowfall a year, while on the upper slopes of Mount Shasta and south and southeasterly of the Mountain as much as 100 inches may be expected. Local situations exert substantial effect on the weather resulting in significant departures from general conditions. Significant variation of precipitation occurs over the county from year to year. Generally, the precipitation pattern follows the rest of the state, with heavy precipitation during the winter, and light rainfall during the summer. Winds are generally light over the county, although at times may increase in strength with winter storms, or under local

effects during summer thunder storms.

The eastern valleys experience a short growing season, increasing in length in the central county and becoming 240-270 in the lower Klamath River.

C. Topography and Geology

Siskiyou County presents a wide range of topographic and geologic form. Much of the county is mountainous, nearly 80% with 20% in valley and hill land, a portion of which is extremely fertile. Elevations range from about 500 feet above sea level at the point on the westerly boundary where the Klamath River leaves the county, to 14,162 feet above sea level at the summit of Mt. Shasta. Two major rivers drain from the county; the Sacramento and its McCloud branch drain the southerly part of the county down through the Great Valley; the Klamath River with its Scott, Salmon, and Shasta branches drain the major portion of the county westerly to the Pacific Ocean.

The county is nearly equally divided along the north-south line into the Klamath mountains and the Cascade Range-Modoc Plateau Geomorphic Provinces, the former being the westerly, and the latter being the easterly portions of the county.

The Klamath Mountains Province is characterized by rugged topography, with prominent peaks and ridges reaching from 6,000 - 8,000 feet. These mountains, where changes in elevation of 2,000 - 4,000 feet are common, contain deep and narrow canyons with peaks and ridges standing

out above. The higher mountains have been glaciated to sharp outline and often contain glacial lake basins. The Klamath Mountains have been chiefly the result stream erosion of an elevated plateau and are therefore considerable dissected by the drainage courses.

The Cascade Mountain-Modoc Plateau Province is a high plateau averaging approximately 4,500 feet in elevation. This is an area of scattered volcanos and volcanic buttes, and exhibits extensive evidence of recent volcanism. The Cascade Range is noted for its many large and recently active volcanos.

Mt. Shasta, with its mantle of glaciers, and one of the highest peaks of the range, dominates the Siskiyou County area. Due to its isolation and its height (14,162), it stands in solitary grandeur separated from the Klamath Mountains by the Shasta Valley. On the easterly side of the Cascades is the large and fertile Butte Valley, the bed of an ancient lake more than 4,000 feet above sea level. All that remains of this body of water is the present Meiss Lake.

The southeasterly part of the county is characterized by the Medicine Lake Highland, and area of considerable elevation characterized by recent volcanic activity. This highland contains numerous small cinder cones and achieves its highest point in Mt. Hoffman, at 7,928 feet.

The Lava Beds National Monument, along the north-easterly edge of the Medicine Lake Highlands, separates the

Cascade Mountain Province from the Modoc Plateau in the northeasterly part of the county. The area of the monument contains many examples of the recent volcanism. That portion of the Modoc Plateau in Siskiyou County is contained in the Tulelake Basin. Although in earlier years Tulelake had an area of 150 square miles, it has shrunk over the years, until it has disappeared as a permanent feature.

D. Soil Types

The county is comprised of a series of valleys and mountain ridges which feature peaks in excess of 14,000 feet. A relatively small percentage (about 9% of the county area) is suitable for cultivation. These areas are important for their prime agricultural capabilities and their products. The county has no soils of capability class 1. Class 1 soil is defined as having in excess of 140 frost free days. Most of these areas sit at an elevation of or in excess of 2,500 feet.

There are 60 different soil types in Siskiyou County. The 39 mapping units shown on the soils map are complexes of two to three soil series. There are 57 soil series and three miscellaneous land types shown on the map. A soil series is a group of soils that have about the same kind of profile or sequence of layers. Except for a different surface texture, all members of a soil series have major horizons or layers that are similar in thickness, arrangement and other important characteristics. Some soils on the following general soil map have the same soil series for which they are named, but differ by properties or qualities of major importance to use and management. They are separated (or phased) by indicating differences such as slope, surface texture or depth of soil.

TABLE OF SOIL CHARACTERISTICS AND QUALITIES

SURVEY AREA or WORK UNIT Siskiyou CountyDate March 1967Prepared by Jesse NewlunSheet 1 of 5

Map Symbol	Soil Name	Position	Profile (dry)			Natural Drainage	Subsoil Perm.	Runoff	Erosion Hazard	Effective Depth (inches)	A.W.C. (inches)	Inherent Fertility	Present Land Use
			Surface Layer	Subsoil	Substratum or Parent Material								
GROUP 1 - AREAS DOMINATED BY MODERATELY DEEP TO VERY DEEP, NEARLY LEVEL TO GENTLY SLOPING, SOMEWHAT POORLY TO VERY POORLY DRAINED SOILS													
Gy AB	Greenhorn association, 0 to 5 percent slopes	Alluvial plains and fans											
	Greenhorn		Dark brown loam, hard, friable, slightly acid	Stratified loam to clay loam layers, hard, friable, slightly acid to neutral	Stratified sandy and gravelly sediments	Somewhat poor to poor	Moderate to Moderately slow	slow	slight	36-60"+	6-10"	high	hay pasture
Pj	Pasquetti association	Alluvial plains and fans											
	Pasquetti		Dark gray silt loam, slightly hard, friable, granular, neutral	Light gray silt loam, massive, hard, friable, mildly alkaline	Stratified silty and sandy sediments	Somewhat poor to poor	moderate	slow	slight	60"+	8-12"	high	grazing
Rb AB	Ramelli association, 0 to 5 percent slopes	Basin or stream bottoms											
	Ramelli		Dark grayish brown silty clay loam, blocky, hard, slightly acid	Gray silty clay, massive, very hard, moderately alkaline	Coarse sand or silty sediments	poor to very poor	slow	slow to ponded	slight	40-60"+	10-13"	high	grazing
Sw	Serpa association	Alluvial plains and fans											
	Serpa		Dark gray silty clay loam, blocky, very hard, friable, moderately alkaline	Dark gray silty clay, prismatic, very hard, very firm, moderately alkaline	Stratified clayey and gravelly gleyed sediments	poor	slow	slow	slight	60"+	10-13"	high	hay pasture
TP-AO	Tulana-Algoma association	Lake basins											
	Tulana		Gray silt loam, massive, slightly hard, friable, neutral	Stratified, gray, silt, massive, hard, firm, moderately alkaline	Stratified diatomaceous earth, peat, and muck	poor to very poor	moderately slow	very slow to ponded	moderate wind	40-60"+	7-10"	high	hay pasture wildlife
	Algoma		Gray silt loam, platy, slightly hard, friable, moderately alkaline	Gray silt loam, massive, slightly hard, firm, strongly alkaline	Sand at 40" or less	poor to very poor	moderately slow	very slow to ponded	moderate wind	20-40"	3-8"	high	hay pasture wildlife
GROUP 2 - AREAS DOMINATED BY SOMEWHAT POORLY TO VERY POORLY DRAINED, NEARLY LEVEL TO GENTLY SLOPING SALINE-ALKALI SOILS													
Gf	Gazelle association	Alluvial plains and bottoms											
	Gazelle		Gray loam, blocky, hard, firm, strongly alkaline, strongly calcareous	Gray silty clay loam, prismatic, very hard, strongly alkaline	Lime cemented hardpan over stratified sediments	poor to very poor	moderate to moderately slow	slow	slight	20-40"	3-10"	high	grazing
HS AB	Henley association, 0 to 5 percent slopes	Lake and stream terraces											
	Henley		Gray loam, platy, slightly hard, very friable, strongly alkaline, calcareous	Gray loam, granular, hard, soft, very friable, strongly alkaline	Strongly cemented hardpan over stratified silty and sandy sediments	somewhat poor	moderate	slow	high wind	20-40"	3-7"	high	grazing
Oe-Ne AB	Ocho-Nevador association, 0 to 5 percent slopes	Old lake basins - low terraces											
	Ocho		Light brownish gray sandy loam, platy, slightly hard, friable, strongly alkaline	Brown sandy clay, prismatic, very firm, strongly alkaline, very hard	Lime cemented hardpan over stratified sandy and silty sediments	somewhat poor	very slow	very slow	moderate wind	15-40"	2-3"	low	grazing
	Nevador		Dark grayish brown loam, granular, soft, very friable, mildly alkaline	Brown sandy clay loam, prismatic, hard, firm, moderately alkaline	Lime cemented hardpan over stratified silty and sandy sediment	somewhat poor	moderately slow	slow	moderate wind	20-40"	3-8"	high	grazing
GROUP 3 - AREAS DOMINATED BY MODERATELY DEEP TO VERY DEEP, NEARLY LEVEL TO STEEP, SOMEWHAT POORLY TO SOMEWHAT EXCESSIVELY DRAINED SOILS													
BC AC	Bonnet association, 0 to 9 percent slopes	Fans, bottoms											
	Bonnet		Grayish brown gravelly loam, platy, slightly hard, friable, neutral	Pale brown very gravelly loam, massive, loose, very friable, mildly alkaline	Stratified gravelly and sandy sediments	good	moderate	slow to medium	slight	60"+	7-9"	high	hay pasture small grains

TABLE OF SOIL CHARACTERISTICS AND QUALITIES

SURVEY AREA or WORK UNIT Siskiyou CountyDate March 1967Prepared by Jesse NewlunSheet 2 of 5

Map Symbol	Soil Name	Position	Profile (dry)			Natural Drainage	Subsoil Perm.	Runoff	Erosion Hazard	Effective Depth (inches)	A.W.C. ^{1/} (inches)	Inherent Fertility	Present Land Use
			Surface Layer	Subsoil	Substratum or Parent Material								
De AE-2	Delaney association, 0 to 30 percent slopes, eroded	Outwash fans - terraces											
	Delaney		Thin, grayish brown sand, massive, soft, very friable, slightly acid	Light gray sand, massive, loose, very friable, neutral	Bedrock or stratified sandy or gravelly or rock flour sediments	good to somewhat excessive	moderate-ly rapid	slow	high wind	40-60"+	3-6	moderate	irrigated hay, pasture, rangeland
Ee AC	Elam association, 0 to 9 percent slopes	Terraces											
	Elam		Thin grayish brown loam, granular, soft, very friable, medium acid	Very pale brown gravelly loam, massive, slightly hard, friable, medium acid	Stratified gravelly silty and sandy layers faintly mottled	good to moderate-ly good	moderate	slow	moderate wind	60"+	6-8	moderate	timber grazing
HR-cD AC-2	Harriman-Calimus association, 0 to 9 percent slopes, eroded	Lake terraces											
	Harriman		Dark gray loam, blocky, slightly hard, friable, neutral	Grayish brown clay loam, prismatic, hard, friable, neutral	Lacustrine sediments that are strongly cemented	good	moderate-ly slow	slow to medium	moderate	40-60"+	8-11	high	irrigated crops
	Calimus		Dark gray loam, granular, slightly hard, very friable, neutral	Dark grayish brown loam, blocky, slightly hard, friable, neutral	Tuff or diatomite which are interbedded	good	moderate	medium	moderate	36-50"	7-9"	high	irrigated crops
PO-Fy AB-2	Poe-Fordney association, 0 to 5 percent slopes, eroded	Terraces, bottoms											
	Poe		Grayish brown loamy fine sand, granular, loose, very friable, moderately alkaline	Light brownish gray, loamy fine sand, loose, very friable, strongly alkaline	Hardpan at depths less than 40" over stratified sediments	somewhat poor	moderate to moderate-ly rapid	slow	high wind	20-40"	3-5"	high	potatoes, onions, hay
	Fordney		Grayish brown loamy sand, granular, loose, very friable, mildly alkaline	Light brownish gray, soft loamy sand, massive, very friable, moderately alkaline	Hardpan at depths exceeding 40" over stratified sediments	moderate-ly good	moderate to moderate-ly rapid	slow	high wind	40-60"+	5-8"	high	irrigated hay and row crops
SB AF	Shasta association, 0 to 50 percent slopes	Glacial outwash plains, fans and moraines											
	Shasta		Thick dark grayish brown loamy sand, granular, soft, very friable, medium acid	Light grayish brown, soft loamy sand, massive, very friable, strongly acid	Stratified sandy and gravelly outwash sediments	somewhat excessive	moderate-ly rapid	slow	high wind	40-60"+	4-7"	moderate	timber
sk AC	Stoner association, 0 to 9 percent slopes	Bottoms, fans and terraces											
	Stoner		Very dark brown gravelly loam, granular, slightly hard, friable, slightly acid	Pale brown gravelly clay loam, blocky, hard, friable, medium acid	Stratified silty, sandy or clayey sediments	good	moderate-ly slow	slow to medium	slight to moderate	60"+	9-12"	high	hay, pasture, small grains
st AB	Surprise association, 0 to 5 percent slopes	Terraces and bottoms											
	Surprise		Light brownish gray, gravelly sandy loam, massive, soft, very friable, neutral	Light brownish gray gravelly sandy loam, soft, very friable, mildly alkaline, massive	Stratified gravelly and sandy sediments	good	moderate	slow	high wind	60"+	7-9"	high	pasture, small grains, hay
GROUP 4 - AREAS DOMINATED BY SHALLOW TO DEEP, WELL OR MODERATELY WELL DRAINED, NEARLY LEVEL TO STEEP SOILS WITH MODERATELY SLOW TO SLOW PERMEABILITIES													
Bw AC	Bieber association, 0 to 9 percent slopes	Terraces											
	Bieber		Thin grayish brown, gravelly loam, granular, hard, friable, slightly acid	Brown gravelly clay, blocky, very hard, very firm, slightly acid	Indurated hardpan over stratified sediments	good	slow	slow to medium	slight to moderate	20-40"	3-8"	high	hay pasture
CS BD	Cohasset association, 2 to 15 percent slopes	Upland											
	Cohasset		Dark brown loam, granular, soft, very friable, strongly acid	Strong brown stony sandy clay loam, blocky, hard, strongly acid	Extrusive igneous bedrock	good	moderate-ly slow	slow to medium	moderate	20-60"	3-10"	medium	timber
LK AC	Louie association, 0 to 9 percent slopes	Upland on volcanic flow rock											
	Louie		Grayish brown sandy loam, granular, slightly hard, friable, neutral	Light brownish gray clay loam, blocky, hard, friable, mildly alkaline	Hardpan over bedrock or stratified silty and sandy sediments	good	moderate-ly slow	slow	moderate wind	20-40"	3-8"	high	irrigated crops

TABLE OF SOIL CHARACTERISTICS AND QUALITIES

Date March 1967

Prepared by Jesse Newlun

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SURVEY AREA or WORK UNIT Siskiyou County

Map Symbol	Soil Name	Position	Profile (dry)			Natural Drainage	Subsoil Perm.	Runoff	Erosion Hazard	Effective Depth (inches)	A.W.C. (inches)	Inherent Fertility	Present Land Use
			Surface Layer	Subsoil	Substratum or Parent Material								
Ne AB	Nevador association, 0 to 5 percent slopes	Old lake terraces and basins											
	Nevador		Dark grayish brown loam, granular, soft, friable, mildly alkaline	Brown sandy clay loam, prismatic, hard, firm, moderately alkaline	Hardpan over stratified sandy and silty sediments	moderate-ly good	moderate-ly slow to slow	slow	moderate wind	20 to 40"	3-8"	high	irrigated crops
Nu BF-2	Nuss association, 2 to 50 percent slopes, eroded	Old lake terraces											
	Nuss		Light gray silt loam, massive, soft, very friable, neutral	Light gray silty clay loam, massive, slightly hard, moderately alkaline	Softly consolidated diatomaceous earth, upper portion calcareous	good	moderate-ly slow	slow to rapid	slight to high	15-40"	3-7"	moderate	irrigated crops
Pi-Tk-Jp BF-2	Parrish-Terwilliger-Josephine association, 2 to 50 percent slopes, eroded	Rolling and mountainous uplands											
	Parrish		Dark brown loam, hard, granular, friable, slightly acid	Dark brown clay loam, blocky, hard, firm, slightly acid	Bedrock - hard sedimentary rock	good	slow	slow to rapid	slight to high	20-60"	3-10	high	hay range-land, small grains pasture
	Terwilliger		Grayish brown silt loam, massive, hard, friable, slightly acid	Light yellowish brown clay, massive, very hard, firm neutral	Bedrock - shaly siltstone	good	slow	medium to rapid	moderate to high	20-60"	3-8	moderate	irrigated hay, pasture, rangeland
	Josephine		Dark grayish brown loam, blocky, slightly hard, friable, medium acid	Yellowish brown clay loam, blocky, hard, firm, medium acid	Bedrock sedimentary	good	moderate-ly slow	medium to rapid	moderate	20-60"	4-11	high	timber
GROUP 5 - AREAS DOMINATED BY MODERATELY DEEP TO DEEP, WELL DRAINED, NEARLY LEVEL TO STEEP SOILS WITH MODERATELY FINE TO FINE TEXTURES AND SLOW TO MODERATELY SLOW PERMEABILITIES													
Lj-Kt-Mk BF-2	Lassen-Kuck-Mary association, stony, 2 to 50 percent slopes, eroded	Stony, rolling, hilly uplands											
	Lassen		Very dark gray, stony clay, blocky, very hard, firm, neutral	Very dark gray stony clay, very hard, very firm, massive, moderately alkaline	Bedrock - extrusive igneous	good	slow	medium to rapid	slight to high	20-60"	3-9"	high	rangeland hay, pasture, small grains
	Kuck		Dark brown silty clay loam, blocky, hard, friable, neutral, stony	Dark grayish brown, stony clay, blocky, very hard, very firm, mildly alkaline	Bedrock - extrusive igneous	good	slow	medium to rapid	slight to high	20-60"	3-9"	high	range-land
	Mary		Dark grayish brown loam, massive, slightly hard, friable, neutral, stony	Dark brown clay loam, massive, hard, firm, mildly alkaline	Bedrock - extrusive igneous	good	moderate-ly slow	medium to rapid	slight to high	20-60"	3-7"	high	range-land
MV AC	Montague association, 0 to 9 percent slopes	Bottoms and terraces											
	Montague		Dark gray clay, blocky, very hard, firm, neutral	Dark gray clay, blocky, very hard, very firm, moderately alkaline	Lime cemented hardpan over softly consolidated tuff	good	slow	slow to medium	slight to moderate	20-40"	3-9"	high	hay, pasture, rangeland
GROUP 6 - AREAS DOMINATED BY SHALLOW TO DEEP, WELL TO SOMEWHAT EXCESSIVELY DRAINED, NEARLY LEVEL TO VERY STEEP SOILS													
BF-Nd-Mh EF	Boomer-Neuns-Mariposa association, 15 to 50 percent slopes	Mountainous upland											
	Boomer		Thin, light reddish brown gravelly clay loam, blocky, slightly acid	Reddish brown gravelly heavy clay loam, blocky, hard, friable, medium acid	Bedrock - metamorphosed rock	good	moderate-ly slow	medium to rapid	moderate to high	20-60"	4-11"	high	timber
	Neuns		Dark brown gravelly sandy loam, massive, soft, friable, medium acid	Brown very gravelly clay loam, blocky, slightly hard, strongly acid	Bedrock - metamorphosed extrusive igneous rock	good	moderate	medium to rapid	moderate to high	20-50"	3-9"	high	timber
	Mariposa		Dark grayish brown gravelly loam, blocky, slightly hard, friable, medium acid	Brown gravelly loam, blocky, hard, friable, strongly acid	Bedrock - metamorphosed rock	good	moderate	medium to rapid	moderate to high	15-30"	2-4"	high	timber
CA-SC-Tr EG-3	Chawanakee-Shaver-Tollhouse association, 15 to 75 percent slopes, severely eroded	Mountainous upland											
	Chawanakee		Thin grayish brown coarse sandy loam, granular, slightly hard	Pale brown coarse sandy loam which is largely weathered granitic rock	Weathered granitic rock	somewhat excessive	moderate-ly rapid	medium to rapid	moderate to high	20-40"	2.5-6"	low	timber
	Shaver		Dark grayish brown sandy loam, granular, soft, slightly acid	Pale brown sandy loam, massive, slightly hard, friable, medium acid	Weathered granitic rock	somewhat excessive	moderate-ly rapid	medium to rapid	moderate to very high	20-60"+	2.5-6"	low	timber

M-3070 1/ Total available water holding capacity within effective soil depth

TABLE OF SOIL CHARACTERISTICS AND QUALITIES

SURVEY AREA or WORK UNIT Siskiyou CountyDate March 1967Prepared by Jess NewlunSheet 4 of 5

Map Symbol	Soil Name	Position	Profile (dry)			Natural Drainage	Subsoil Perm.	Runoff	Erosion Hazard	Effective Depth (inches)	A.W.C. (inches)	Inherent Fertility	Present Land Use
			Surface Layer	Subsoil	Substratum or Parent Material								
	Tollhouse		Dark grayish brown, rocky coarse sandy loam, granular, slightly acid	Decomposing granitic rock	Hard granitic rock	somewhat excessive	moderately rapid	very rapid	very high	10-20"	2.5-4"	low	timber
<u>Dv-Is-We</u> <u>Ef</u>	Dubakella-Ishi Pishi-Weitchpec association, 15 to 50 percent slopes	Mountainous upland											
	Dubakella		Thin, dark brown, stony clay loam, blocky, hard, friable, medium acid	Dark reddish brown, stony silty clay loam, blocky, strongly acid, hard	Bedrock-metamorphosed rock high in serpentine minerals	good	moderately slow	medium to rapid	moderate to high	20-60"	3-9"	low	timber
	Ishi Pishi		Thick, yellowish red, gravelly loam, granular, hard, friable, medium acid	Reddish brown, gravelly clay, blocky, hard, firm, slightly acid	Bedrock - metamorphosed rock high in serpentine minerals	good	slow	medium to rapid	moderate to high	20-60"	3-9"	low	timber
	Weitchpec		Pale brown, very gravelly loam, granular, soft, friable, medium acid	Light yellowish brown, gravelly loam, blocky, soft, friable, slightly acid	Bedrock - metamorphosed rock high in serpentine minerals	good	moderately slow	medium to rapid	moderate to high	20-40"	3-9"	low	timber
<u>Kw-BF</u> <u>Ef</u>	Kinkel-Boomer association, 15 to 50 percent slopes	Mountainous upland											
	Kinkel		Thin, dark grayish brown gravelly loam, granular, slightly hard, friable	Reddish, very gravelly clay loam, blocky, hard, firm, medium acid	Bedrock - metamorphosed sedimentary and igneous rock	good	moderately slow	medium to very rapid	moderate to high	20-60"	3-9"	moderate	timber
	Boomer		Thin, light reddish brown, gravelly clay loam, blocky, slightly hard, friable	Reddish brown, gravelly heavy clay loam, hard, friable, medium acid	Bedrock - metamorphosed sedimentary and igneous rock	good	moderately slow	medium to very rapid	moderate to high	20-60"	4-11"	moderate	timber
<u>Kw-BF-DA</u> <u>BF</u>	Kinkel-Boomer-Duzel association, 2 to 50 percent slopes	Mountainous, hilly uplands											
	Kinkel		Thin dark grayish brown gravelly loam, granular, slightly hard, friable	Reddish yellow very gravelly clay loam, blocky, hard, firm, medium acid	Bedrock - metamorphosed sedimentary and igneous rock	good	moderately slow	medium to very rapid	moderate to high	20-60"	3-9"	moderate	timber
	Boomer		Thin light reddish brown gravelly clay loam, blocky, slightly hard, friable	Reddish brown, gravelly heavy clay loam, hard, friable, medium acid	Bedrock - metamorphosed sedimentary and igneous rock	good	moderately slow	medium to very rapid	moderate to high	20-60"	4-11"	moderate	timber
	Duzel		Thin grayish brown gravelly loam, massive, hard, friable, neutral	Light yellowish brown, gravelly clay loam, hard, blocky, friable, neutral	Bedrock - metamorphosed sedimentary and igneous rock	good	moderately slow	medium to rapid	moderate to high	20-48"	3-5"	high	rangeland
<u>Mm-SF</u> <u>Ef</u>	Masterson-Sheetiron association, 15 to 50 percent slopes	Mountainous upland											
	Masterson		Thin, dark brown gravelly loam, granular, soft, friable, strongly acid	Yellowish brown gravelly loam, blocky, slightly hard, friable, strongly acid	Bedrock - fractured schistic sedimentary rocks	good	moderately slow	medium to rapid	moderate to high	20-60"	3-8"	moderate	timber
	Sheetiron		Dark brown, gravelly loam, granular, soft, friable, medium acid	Brown gravelly loam, blocky, slightly hard, friable, strongly acid	Bedrock - fractured schistic sedimentary rocks	good	moderately slow	medium to rapid	moderate to high	20-60"	3-8"	moderate	timber
<u>Tu-PJ-Nb</u> <u>AF</u>	Tournquist-Portola-Nanny association, 0 to 50 percent slopes	Lava plateau uplands, fans, mountainous uplands											
	Tournquist		Dark brown stony loam, granular, slightly hard, very friable, slightly acid	Brown gravelly clay loam, massive, slightly hard, slightly acid	Bedrock - extrusive igneous	good	moderate	slow	moderate	20-60"	3-10"	high	timber grazing
	Portola		Very thin, dark grayish brown, stony loam, soft, granular, friable	Pale brown very stony loam, massive, soft, very friable, medium acid	Bedrock - extrusive igneous	somewhat exclusive	moderate	slow to medium	moderate	20-60"	4-8"	moderate	timber grazing
	Nanny		Dark grayish brown, gravelly loam, granular, soft, very friable	Brown very gravelly loam, massive, slightly hard, friable, medium acid	Very gravelly stratified alluvium	good	moderately rapid	slow	moderate	40-60"	7-9"	high	timber grazing
<u>TJ-Cb</u> <u>F</u>	Tyson-Cahto association, 30 to 50 percent slopes	Mountainous uplands											
	Tyson		Thin grayish brown gravelly loam, granular, slightly hard, friable	Pale olive gravelly clay loam, blocky, slightly hard, friable, medium acid	Grayish shaly bedrock, high fractured	good	moderately slow	medium to rapid	moderate to high	20-60"	3-7"	moderate	timber grazing
	Cahto		Thick grayish brown gravelly loam, granular, slightly hard, friable	Grayish brown gravelly silty clay loam, blocky, hard, friable, medium acid	Dark colored shaly bedrock	good	moderately slow to slow	medium to rapid	moderate to high	20-60"	3-11"	high	timber grazing

TABLE OF SOIL CHARACTERISTICS AND QUALITIES

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Map Symbol	Soil Name	Position	Profile (dry)			Natural Drainage	Subsoil Perm.	Runoff	Erosion Hazard	Effective Depth (inches)	A.W.C. ^{1/} (inches)	Inherent Fertility	Present Land Use
			Surface Layer	Subsoil	Substratum or Parent Material								
<u>Wv-PU</u> <u>EF</u>	Woodcock-Pokegema association, 15 to 50 percent slopes	Mountainous uplands											
	Woodcock		Dark grayish brown, stony loam, granular, very friable, medium acid	Grayish brown, very stony clay loam, blocky, slightly hard, friable, medium acid	Bedrock - extrusive igneous rock	good	moderate	medium	moderate	20-60"	3-9"	moderate	timber grazing
	Pokegema		Very thick, dark grayish brown loam, granular, slightly hard, medium acid	Grayish brown clay loam, blocky, hard, friable, medium acid	Bedrock - extrusive igneous rock	good	moderate	medium	moderate	20-60"	3-11"	moderate	timber grazing
GROUP 7 -	AREAS DOMINATED BY DEE P	TO SHALLOW, STONY OR ROCKY,	WELL TO EXCESSIVELY DRAINED SOILS ON NEARLY LEVEL TO VERY STEEP SLOPES										
<u>Gh-Gm</u> <u>AD</u>	Gerig-Gleason association, 0 to 15 percent slopes	Rolling uplands on old lava flows - terraces											
	Gerig		Thin grayish brown stony loam, granular, slightly hard, slightly acid	Light yellowish brown clay loam, blocky, hard, firm, neutral	Bedrock - extrusive igneous	good	moderate-ly slow	slow to medium	slight to moderate	20-40"	3-8"	high	irrigated crops rangeland
	Gleason		Brown loam, granular, soft, very friable, neutral	Pale brown loam, blocky, slightly hard, very friable, mildly alkaline	Tuff or other extrusive bedrock	good	moderate	slow to medium	slight to moderate	20-60"	3-8"	high	irrigated crops rangeland
<u>PD</u> <u>AC-2</u>	Plutos association, 0 to 9 percent slopes, eroded	Lava plateau uplands											
	Plutos		Grayish brown stony sand, loose, neutral	Grayish brown stony sand, massive, soft, neutral	Bedrock - basalt	excessive	moderate-ly rapid	very slow	high wind	15-30"	1-4"	low	rangeland
<u>Wl-LP-RL</u> <u>EG</u>	Windy-Lava flow-Rock land association, 15 to 75 percent slopes	Mountainous uplands											
	Windy		Thick, dark gray, very stony sandy loam, granular, soft, medium acid	Lighter colored than surface, otherwise similar	Bedrock - extrusive igneous	excessive	moderate-ly rapid	slow to very rapid	high wind	15-40"	2-4"	low	timber
	Lava flow		Recent and fairly recent lava flows that are highly fractured. There is little or no vegetation.			well	very slow to very rapid	very rapid	low	none	none	very low	recreation wildlife
	Rock land		Very rocky and extremely stony land that has very little vegetation.			well	slow	very rapid	low	0-15"	1-2"	low	rangeland recreation wildlife
GROUP 8 - AREAS DOMINATED BY MISCELLANEOUS LAND TYPES													
<u>LF</u>	Lava flows association	Upland											
	Lava flows		Recent and fairly recent lava flows that are highly fractured. There is little vegetation.			well	none	very rapid	low	none	none	very low	recreation wildlife
<u>RL</u>	Rock land association												
	Rock land		Very rocky and extremely stony land that has very little vegetation.			well	slow	very rapid	low	0-15"	1-2"	low	rangeland recreation wildlife
<u>TX</u>	Tailings association	Stream bottoms and terraces											
	Tailings		Waste materials from dredging operations. All fine earth has been washed away and only gravels, cobbles, boulders and stones remain.			excessive	very rapid	slow	low		none	extremely low	recreation, rock metal

M-3070 ^{1/} Total available water holding capacity within effective soil depth.

E. Natural Vegetation

The natural vegetation in Siskiyou County is influenced by the climate and topographic features. The following are the general classifications into which the county is divided:

Forest Land	Chaparral
Grassland	Sagebrush, Barren
Cultivated, Urban	or Marsh
or Industrial	

Forest Lands constitute 83 per cent of the county's area. Grass is the prevailing ground cover in the Shasta Valley. The Scott Valley is cultivated or Chaparral. The Butte and Tulelake basins range from cultivated through sagebrush and marsh to barren.



VEGETATION TYPES of SISKIYOU COUNTY



F. Natural Resources

The primary natural resource within the county is the forest land. Besides the obvious value of timber, there are considerations such as open space and the natural habitat of Siskiyou County's abundant wildlife.



The following sections are an inventory of the wildlife species either located within or having a range within Siskiyou County. State designated "Rare and Endangered" as well as possible rare species are marked. Sub-species are named for clarity.

This is a generalized inventory. While as complete as possible, some species may be unintentionally omitted, and, due to the large number of species, any greater breakdown at this point would be impractical.



Siskiyou Wildlife - Mammals

Game Animals

Prong-horn Antelope	(Antilocapra americana)
Rocky Mountain Mule Deer	(Odocoileus hemionus hemionus)
Columbian Black-tailed Deer	(Odocoileus hemionus columbianus)
Roosevelt Elk	(Cervus canadensis roosevelti)
Rocky Mountain Elk	(Cervus canadensis nelsoni)
Northwestern Black Bear	(Euarctos americanus altifornnalis)
Sierra Nevada Black Bear	(Euarctos americanus californiensis)
California Bighorn Sheep**	(Ovis canaclenis californiana)
Black-tailed Jackrabbit	(Lepus californicus)
White-tailed Jackrabbit	(Lepus townsendii)
Snowshoe Rabbit	(Lepus americanus)
Nuttall Cottontail Rabbit	(Sylvilagus nuttallii)
Brush Rabbit	(Sylvilagus bachmani)
Western Gray Squirrel	(Sciurus griseus)
Douglas Squirrel (Chicaree)	(Tamiasciurus douglasii)
Northern Flying Squirrel	(Glaucomys sabrinus)

**State designated rare and endangered

Furbearing Mammals

Raccoon	(<i>Procyon lotor</i>)
Ringtail Cat	(<i>Bassariscus astutus</i>)
Pine Marten	(<i>Martes caurina</i>)
Fisher	(<i>Martes pennanti</i>)
**Wolverine	(<i>Gulo luscus</i>)
Shorttailed Weasel (Ermine)	(<i>Mustela erminea</i>)
Longtailed Weasel	(<i>Mustela frenata</i>)
Mink	(<i>Mustela vison</i>)
River Otter	(<i>Lutra canadensis</i>)
California Striped Skunk	(<i>Mephitis mephitis</i>)
Spotted Skunk	(<i>Spilogale gracilis</i>)
Badger	(<i>Laxidea taxus</i>)
Grey Fox	(<i>Urocyon cinereoargenteus</i>)
Mountain Coyote	(<i>Canis latrans lestes</i>)
California Valley Coyote	(<i>Canis latrans ochropus</i>)
California Wildcat (Bobcat)	(<i>Lynx rufus californicus</i>)
Northwestern Wildcat (Bobcat)	(<i>Lynx rufus fasciatus</i>)
Pallid Wildcat (Bobcat)	(<i>Lynx rufus pallescens</i>)
Shasta Beaver	(<i>Castor canadensis</i> <i>shastensis</i>)
Muskrat	(<i>Ondatra zibethica</i>)
Virginia Opossum	(<i>Didelphis virginiana</i>)
California Mountain Lion	(<i>Felis concolor californica</i>)

**State Designated rare and endangered

Non-game Mammals

Townsend's Chipmunk	(<i>Eutamias townsendi</i>)
Yellow Pine Chipmunk	(<i>Eutamias amoenus</i>)
Least Chipmunk	(<i>Eutamias minimus</i>)
Sonoma Chipmunk	(<i>Eutamias sonomae</i>)
Golden-mantled Ground Squirrel	(<i>Citellus lateralis</i>)
Belding Ground Squirrel	(<i>Citellus beldingi</i>)
Oregon Ground Squirrel	(<i>Citellus oregonii</i>)
California Ground Squirrel	(<i>Citellus beecheyi</i>)
Yellowbelly Marmot	(<i>Mormota flaviventris</i>)
Sierra Pocket Gopher	(<i>Thomomys monticola</i>)
Northern Pocket Gopher	(<i>Thomomys talpoides</i>)
Valley Pocket Gopher	(<i>Thomomys bottae</i>)
Great Basin Pocket Mouse	(<i>Perognathus parvus</i>)
Little Pocket Mouse	(<i>Perognathus longimembris</i>)
Heermann Kangaroo Rat	(<i>Dipodomys heermanni</i>)
Great Basin Kangaroo Rat	(<i>Dipodomys microps</i>)
Northern Grasshopper Mouse	(<i>Onychomys leucogaster</i>)
Western Harvest Mouse	(<i>Reithrodontomys megalotis</i>)
White-footed Deer Mouse	(<i>Peromyscus maniculatus</i>)
Canyon Deer Mouse	(<i>Peromyscus crinitus</i>)
Pinyon Mouse	(<i>Peromyscus truei</i>)
Brush Mouse	(<i>Peromyscus boylei</i>)
Bushytail Wood Rat	(<i>Neotoma cinerea</i>)
Dusky-footed Wood Rat	(<i>Neotoma fuscipes</i>)
House Mouse	(<i>Mus musculus</i>)

Mountain Phenacomys	(Phenacomys intermedius)
Tree Phenacomys	(Phenacomys longicaudus)
California Vole	(Microtus californicus)
California Redback Vole	(Clethrionomys californicus)
Townsend Vole	(Microtus townsendii)
Mountain Vole	(Microtus montanus)
Oregon Vole	(Microtus oregoni)
Longtailed Vole	(Microtus longicaudus)
Norway Rat	(Rattus norvegicus)
Aplodontia (Mountain Beaver)	(Aplodontia rufa)
Western Jumping Mouse	(Zapus princeps)
Pika	(Ochotona schisticeps)
Porcupine	(Erethizon dorsatum)
California Mole	(Scapanus latimanus)
Shrew-Mole	(Neurotrichus gibbsii)
Pacific Mole	(Scapanus orarius)
Trowbridge Shrew	(Sorex trowbridgii)
Pacific Water Shrew	(Sorex bendirei)
Pacific Shrew	(Sorex pacificus)
Merriam Shrew	(Sorex merriami)
Vagrant Shrew	(Sorex vagrans)
Dusky Shrew	(Sorex obscurus)
Ornate Shrew	(Sorex ornatus)

Bats

Little Brown Myotis	(Myotis lucifugus)
Long-eared Myotis	(Myotis evotis)
Yuma Myotis	(Myotis yumanensis)
Small-footed Myotis	(Myotis subulatus)
Fringed Myotis	(Myotis thysanodes)
California Myotis	(Myotis californicus)
Long-legged Myotis	(Myotis valaus)
Pallid Bat	(Antrozous pallidus)
Western Pipstrel	(Pipistrellus hesperus)
Red Bat	(Lasiurus borealis)
Silver-haired Bat	(Lasionycteris noctivagans)
Hoary Bat	(Lasiurus cinerea)
Western Big-eared Bat	(Corynorhenus refinesquili)
Big Brown Bat	(Eptesicus fuscus)
Mexican Freetail Bat	(Tadarida mexicana)
Big Freetail Bat	(Tadarida macrotis)

Game Birds

Blue (Sierra) Grouse	(Dendragapus obscurus)
Ruffed Grouse	(Bonasa umbellus)
Sage Grouse	(Centrocercus urophasianus)
California (Valley) Quail	(Lophortyx californicus)
Mountain Quail	(Oreortyx pictus)
Band-tailed Pigeon	(Columba fasciata)
Mourning Dove	(Zenaidura macroura)
Ring-necked Pheasant	(Phasianus colchicus)
Chukar Partridge	(Alectoris graeca)



Waterfowl

Whistling Swan	(Olor columbianus)
Canada Goose	(Branta canadensis)
Lesser Canada Goose	(Branta canadensis leucopareia)
Cackling Goose	(Branta canadensis minima)
White-fronted Goose	(Anser albifrons)
***Tule Goose	(Anser albifrons gambelli)
***Emperor Goose	(Philacte canagica)
Lesser Snow Goose	(Chen hyperborea)
***Ross's Goose	(Chen rossii)
***Blue Goose	(Chen caerulescens)
Mallard	(Anas platyrhynchos)
Pintail (Sprig)	(Anas acuta)
Gadwall	(Anas strepera)
Baldpate (Widgeon)	(Mareca americana)
***European Widgeon	(Mareca penelope)
Shoveller (Spoonbill)	(Spatula clypeata)
Green-winged Teal	(Anas carolinensis)
Blue-winged Teal	(Anas discors)
Cinnamon Teal	(Anas cyanoptera)
Wood Duck	(Aix sponsa)
Redhead	(Aythya americana)
Canvasback	(Aythya collaris)
***Uncommon and Unique	

Waterfowl (Cont.)

Greater Scaup	(Aythya marila)
Lesser Scaup	(Aythya affinis)
American Golden-eye	(Bucephala clangula)
Barrow's Golden-eye	(Bucephala islandica)
Buffle Head	(Bucephala albeola)
***Old Squaw	(Clangula hyemalis)
***Western Harlequin Duck	(Histrionicus histrionicus pacificus)
***White-winged Scoter	(Melanitta deglandi)
***Surf Scoter	(Melanitta perspicillata)
Hooded Merganser	(Lophodytes cucullatus)
American Merganser	(Mergus merganser)
Red-breasted Merganser	(Mergus serrator)
Ruddy Duck	(Oxyura jamaicensis)
***Fulvous Tree Duck	(Dendrocygna helva)
Ring-necked Duck	(Aythya collaris)
***Black Duck	(Anas rubripes tristis)
***Black Brant	(Branta nigricans)
***Barnacle Goose	(Granta leucopsis)
**Trumpeter Swan	(Olor buccinator)

**Rare and Endangered

***Uncommon and Unique

Water Associated, Shore and Marsh Birds

Common Loon	(Gavia immer)
Double crested Cormorant	(Phalacrocorax auritus)
White Pelican	(Pelecanus erythrorhynchos)
Great Blue Heron	(Ardea herodias)
Green Heron	(Butorides virescens)
Black-crowned Night Heron	(Nycticorax nycticorax)
American Bittern	(Botaurus lentiginosus)
Least Bittern	(Lixobrychus exilis)
American Egret	(Casmerodius albus)
Snowy Egret	(Leucophoyx thula)
Belted Kingfisher	(Megaceryle alcyon)
Western Grebe	(Aechmophorus occidentalis)
Eared Grebe	(Podiceps caspicus)
Pied-billed Grebe	(Podilymbus podiceps)
Red-necked Grebe	(Podiceps grisegena)
Horned Grebe	(Podiceps auritus)
Common Gallinule	(Gallinula chloropus)
American Coot	(Fulica americana)
Sora	(Porzana carolina)
Virginia Rail	(Rallus limicola)
**California Black Rail	(Laterallus jamaicensis coturniculus)
**Brown Pelican	(Pelecanus occidentalis)
**Sandhill Crane	(Grus canadensis)

**Rare and Endangered

Water Associated, Shore and Marsh Birds (Cont.)

*White-faced Ibis	(Plegadis chihi)
***Arctic Loon	(Gavia arctica)
***Snowy Plover	(Charadrius alexandrinus)
Common Snipe	(Capella gallinago)
Killdeer	(Charadrius vociferus)
***Long billed Curlew	(Numenius phaeopus)
Spotted Sandpiper	(Actitis macularia)
*Solitary Sandpiper	(Tringa solitaria)
Willet	(Cathartophorus semipalmatus)
Greater Yellowlegs	(Totanus melanoleucus)
***Lesser Yellowlegs	(Totanus flavipes)
***Knot	(Calidris canutus)
***Pectoral Sandpiper	(Erolia melanotos)
Least Sandpiper	(Erolia minutilla)
***Dunlin	(Erolia alpina)
Long-billed Dowitcher	(Limnodromus scolopaceus)
Stilt Sandpiper	(Micropalama himantopus)
Western Sandpiper	(Ereunetes mauri)
Marbled Godwit	(Limosa fedoa)
Sanderling	(Crocethia alba)
American Avocet	(Recurvirostra americana)
*Rare	
***Uncommon and Unique	

Water Associated, Shore and Marsh Birds (Cont.)

Black-necked Stilt	(Himantopus mexicanus)
Wilson's Phalarope	(Steganopus tricolor)
Northern Phalarope	(Lobipes labatus)
Herring Gull	(Larus argentatus)
California Gull	(Larus californicus)
Ring-billed Gull	(Larus delawarensis)
Bonaparte's Gull	(Larus philadelphia)
Forester's Tern	(Sterna forsteri)
Caspian Tern	(Hydroprogne caspia)
Black Tern	(Chlidonis niger)
Semipalmated Plover	(Charadrius semipalmatus)
Baird's Sandpiper	(Erolia bairdii)
Ruff	(Philomachus pugnax)
Parasitic Jaeger	(Stercorarius parasiticus)

Raptors (Hawks, Eagles, Owls, Vultures)

***Goshawk	(Accipiter gentilis)
Cooper's Hawk	(Accipiter cooperii)
Sharp-skinned Hawk	(Accipiter striatus)
**White-tailed Kite	(Elanus leucurus)
Marsh Hawk	(Circus cyaneus)
Red-tailed Hawk	(Buteo jamaicensis)
American Rough-legged Hawk	(Buteo lagopus)
***Ferruginous Rough-legged Hawk	(Buteo regalis)
Swainson's Hawk	(Buteo swainsoni)

**Rare and Endangered
***Uncommon and Unique

Raptors (Hawks, Eagles, Owls, Vultures) Cont.

***Golden Eagle	(Aquila chrysaetos)
**Southern Bald Eagle	(Haliaeetus leucocephalus)
*Osprey	(Pandion haliaetus)
***Red-shouldered Hawk	(Buteo lineatus)
***Prairie Falcon	(Falco mexicanus)
**Peregrine Falcon	(Falco peregrinus)
***Pigeon Hawk	(Falco columbarius)
Sparrowhawk	(Falco sparverius)
Screech Owl	(Otus asio)
Great-horned Owl	(Bubo virginianus)
Long-eared Owl	(Asio otus)
Short-eared Owl	(Asio flammeus)
Barn Owl	(Tyto alba)
Burrowing Owl	(Speotyto cunicularia)
Saw-whet Owl	(Aegolius acadicus)
***Flammulated Owl	(Otus flammeolus)
**Spotted Owl	(Strix occidentalis)
***Snowy Owl	(Nycetea scandiaca)
***Great Gray	(Strix nebulosa)
***Gyr Falcon	(Falco rusticolus)

* Rare

** Rare and Endangered

*** Uncommon and Unique

Woodpeckers

Red-shafted Flicker	(Colaptes cafer)
***Pileated Woodpecker	(Dryocopus pileatus)
Lewis Woodpecker	(Asyndesmus lewis)
Yellow-bellied Sapsucker	(Sphyrapicus varius)
***Williamson's Sapsucker	(Sphyrapicus thyroideus)
Red Breasted Sapsucker	(Sphyrapicus varius)
Hairy Woodpecker	(Dendrocopos villosus)
Downy Woodpecker	(Dendrocopos pubescens)
***White-headed Woodpecker	(Dendroconos albolarvatus)
***Black-backed Three-Toed Woodpecker	(Picoides arcticus)
Acorn Woodpecker	(Melanerpes formicivorus)
Nuttall's Woodpecker	(Dentrocopos nuttallii)
Northern Three-toed Woodpecker	(Picoides tridactylus)
***Uncommon and Unique	



Nongame and Song Birds

Black-capped Chickadee	(<i>Parus atricapillus</i>)
Mountain Chickadee	(<i>Parus gambeli</i>)
Chestnut-backed Chickadee	(<i>Parus rufescens</i>)
Plain Titmouse	(<i>Parus inornatus</i>)
Common Bushtit	(<i>Psaltiriparus minimus</i>)
White-breasted Nuthatch	(<i>Sitta carolinensis</i>)
Red-breasted Nuthatch	(<i>Sitta canadensis</i>)
***Pigmy Nuthatch	(<i>Sitta pygmaea</i>)
Wrentit	(<i>Chamaea fasciata</i>)
House Wren	(<i>Troglodytes aedon</i>)
Winter Wren	(<i>Troglodytes troglodytes</i>)
Bewick's Wren	(<i>Thryomanes bewickii</i>)
Long-billed Marsh Wren	(<i>Telmatodytes palustris</i>)
Canyon Wren	(<i>Catherpes mexicanus</i>)
***Rock Wren	(<i>Salpinctes obsoletus</i>)
Sage Thrasher	(<i>Oreoscoptes montanus</i>)
Robin	(<i>Turdus migratorius</i>)
Varied Thrush	(<i>Ixoreus naevius</i>)
Swainson's Thrush	(<i>Hylocichla ustulata</i>)
Hermit Thrush	(<i>Hylocichla guttata</i>)
Western Bluebird	(<i>Sialia mexicana</i>)
Mountain Bluebird	(<i>Sialia currucoides</i>)
Townsend's Solitaire	(<i>Myadestes townsendi</i>)
***Uncommon and Unique	

Nongame and Song Birds (Cont.)

Golden-crowned Kinglet	(regulus satrapa)
Ruby-crowned Kinglet	(Regulus calendula)
Water pipit	(Anthus spinoletta)
Bohemian Waxwing	(Bombycilla garrula)
Cedar Waxwing	(Bombycilla cedrorum)
***Poor-will	(Phalaemoptilus nuttallii)
Common Nighthawk	(Chordeiles minor)
***Vaux's Swift	(Chaetura vauxi)
Annas Hummingbird	(Calypte anna)
Broad-tailed Hummingbird	(Selasphorus platycercus)
Calliope Hummingbird	(Stellula calliope)
***Black-skinned Hummingbird	(Archilochus alexandri)
Rufous Hummingbird	(Selasphorus rufus)
***Allan's Hummingbird	(Selasphorus sasin)
***Eastern Kingbird	(Tyrannus tyrannus)
Western Kingbird	(Tyrannus verticalis)
Say's Phoebe	(Sayornis saya)
Trail's Flycatcher	(Empidonax traillii)
Hammond's Flycatcher	(Empidonax hammondii)
Dusky Flycatcher	(Empidonax oberhlseri)
Gray Flycatcher	(Empidonax wrightii)
Ash-throated Flycatcher	(Myiarchus cinerascens)
Olive-sided Flycatcher	(Nuttallornis borealis)
***Uncommon and Unique	

Nongame and Song Birds (Cont.)

Western-wood Pewee	(Contopus sordidulus)
Horned Lark	(Eremophila alpestris)
Gray Jay	(Perisoreus canadensis)
Stellers Jay	(Cyanocitta stelleri)
Scrub Jay	(Aphelocoma coerulescens)
Black-billed Magpie	(Pica pica)
Common Raven	(Corvus corax)
Common Crow	(Corvus brachyrhynchos)
Pinon Jay	(Gymnorhinus cyanocephala)
Clarks Nutcracker	(Nucifraga columbiana)
Brown Creeper	(Certhia familiaris)
Dipper (Water Ouzel)	(Cinclus mexicanus)
Western Tanager	(Piranga ludoviciana)
Black-headed Grosbeak	(Pheucticus melanocephalus)
Lazuli Bunting	(Passerina amoena)
Pine Grosbeak	(Pinicola enucleator)
***Blue Grosbeak	(Guiraca caerulea)
Purple Finch	(Carpodacus purpureus)
Cassin's Finch	(Carpodacus cassinii)
Hours Finch	(Carpodacus mexicanus)
***Hepburns Rosy Finch (Nests only on Mt. Shasta)	(Leucostice tephrocotis littoralis)
***Uncommon and Unique	

Nongame and Song Birds (Cont.)

Pine Siskin	(<i>Spinus pinus</i>)
American Goldfinch	(<i>Spinus tristis</i>)
Lesser Goldfinch	(<i>Spinus psaltria</i>)
Red Crossbill	(<i>Loxia curvirostra</i>)
Green-tailed Towhee	(<i>Chlorura chlorura</i>)
Rufous-sided Towhee	(<i>Pipilo erythrophthalmus</i>)
Brown Towhee	(<i>Pipilo fuscus</i>)
Savannah Sparrow	(<i>Passerculus sandwichensis</i>)
House Sparrow	(<i>Passer domesticus</i>)
Vesper Sparrow	(<i>Pooecetes gramineus</i>)
Lark Sparrow	(<i>Chondestes grammacus</i>)
Sage Sparrow	(<i>Amphispiza belli</i>)
Slate-colored Junco	(<i>Junco hyemalis</i>)
Oregon Junco	(<i>Junco oreganus</i>)
Chipping Sparrow	(<i>Spizella passerina</i>)
Brewers Sparrow	(<i>Spizella breweri</i>)
Harris Sparrow	(<i>Zonotrichia querula</i>)
White-throated Sparrow	(<i>Zonotrichia albicollis</i>)
Fox Sparrow	(<i>Passerella iliaca</i>)
Black-chinned Sparrow	(<i>Spizella atropularis</i>)
White Winged Crossbill	(<i>Loxia [eucoptera]</i>)
White Crowned Sparrow	(<i>Zonotrichia leucophrys</i>)
Golden Crowned Sparrow	(<i>Zonotrichia atricapilla</i>)
Northern Shrike	(<i>Lanius excubitor</i>)
Loggerhead Shrike	(<i>Lanius ludovicianus</i>)

Nongame and Song Birds (Cont.)

Starling	(Sturnus vulgaris)
Solitary Vireo	(Vireo solitarius)
Warbling Vireo	(Vireo gilvus)
Huttons	(Vireo huttoni)
***Red-eyed Vireo	(Vireo olivaceus)
Orange-crowned Warbler	(Vermivora celata)
Nashville Warbler	(Vermivora ruficapilla)
Yellow Warbler	(Dendroica petechia)
Myrtle Warbler	(Dendroica coronato)
Audubon's Warbler	(Dendroica auduboni)
Black-throated Gray Warbler	(Dendroica nigrescens)
Hermit Warbler	(Dendroica occidentalis)
MacGillivay's Warbler	(Oporornis tolmiei)
Yellowthroat	(Geothlypis trichas)
Yellow-breasted Chat	(Icteria virens)
Wilson's Warbler	(Wilsonia pusilla)
Townsens's Warbler	(Dendroica townsendi)
***Bay-breasted Warbler	(Dendroica castanea)
Western Meadowlark	(Sturnella neglecta)
Yellow-headed Blackbird	(Xanthocephalus xanthocephalus)
Red-winged Blackbird	(Agelaius phoeniceus)
Tricolored Blackbird	(Agelaius tricolor)
***Uncommon and Unique	

Nongame and Song Birds (Cont.)

Bullock's Oriole	(<i>Icterus bullockii</i>)
***Orchard Oriole	(<i>Icterus spurius</i>)
Brewers Black	(<i>Euphagus cyanocephalus</i>)
Brown-headed Cowbird	(<i>Molothrus ater</i>)
***Lincoln's Sparrow	(<i>Melospiza lincolnii</i>)
Song Sparrow	(<i>Melospiza melodia</i>)
Chestnut-collared Longspur	(<i>Calcarius ornatus</i>)
***Lapland Longspur	(<i>Calcarius lapponicus</i>)
***Snow Bunting	(<i>Plectrophenax nivalis</i>)
***Bobolink	(<i>Dolichonyx oryzivorus</i>)
***Indigo Bunting	(<i>Passerina cyanea</i>)
Barn Swallow	(<i>Hirundo rustica</i>)
Violet-green Swallow	(<i>Tachycineta thalassina</i>)
Bank Swallow	(<i>Riparia riparia</i>)
***Rough-winged Swallow	(<i>Stelgidopteryx ruficollis</i>)
Cliff Swallow	(<i>Petrochelidon pyrrhonota</i>)
***Purple Martin	(<i>Progne subis</i>)
***Cave Swallow	(<i>Petrochelidon fulva</i>)
***Gray-crowned Rosy Finch	(<i>Leucosticte tephrocotis</i>)
***Black Rosy Finch	(<i>Leucosticte atrata</i>)
***Common Redpoll	(<i>Acanthis flammea</i>)
***Uncommon and unique	

Nongame and Song Birds (Cont.)

Grasshopper Sparrow

(*Ammodramus savannarum*)

Tree Sparrow

(*Spizella arborea*)

Western Flycatcher

(*Empidonax difficilis*)

***Mockingbird

(*Mimus polyglottos*)

Evening Grosbeak

(*Hesperiphona vespertina*)

*** Uncommon and Unique



Reptiles and Amphibians

Mole Salamanders

- | | |
|--------------------------------|--------------------------------------|
| Pacific Giant Salamander | - (<i>Dicamptodon ensatus</i>) |
| Long-Toed Salamander, Southern | - (<i>Ambystoma macrodactylum</i>) |
| Olympic Salamander, Southern | - (<i>Rhyacotriton olympicus</i>) |

Newts, Web-toed Salamanders, and Ensatina

- | | |
|------------------------------|------------------------------------|
| Rough-Skinned Newt, Northern | - (<i>Taricha granulosa</i>) |
| Shasta Salamander | - (<i>Hydromantes shastae</i>) |
| California Newt, Sierra | - (<i>Taricha tarasa</i>) |
| Ensatina, Oregon Salamander | - (<i>Ensatina eschscholtzi</i>) |

Woodland Salamanders

- | | |
|--------------------------------|-------------------------------|
| **Siskiyou Mountain Salamander | - (<i>Plethodon stormi</i>) |
|--------------------------------|-------------------------------|

Slender and Climbing Salamanders

- | | |
|---------------------------|-------------------------------------|
| Black Salamander, specked | - (<i>Aneides flavipunctatus</i>) |
|---------------------------|-------------------------------------|

Spadefoot Toads; Tailed and Barking Frogs

- | | |
|-----------------------|---------------------------------------|
| Great Basin Spadefoot | - (<i>Scaphiopus intermontanus</i>) |
| Western Spadefoot | - (<i>Scaphiopus hammondi</i>) |
| Tailed Frog | - (<i>Ascaphus truei</i>) |

Toads

- | | |
|--------------------------|-------------------------------------|
| Western Toad, Boreal | - (<i>Bufo boreas boreas</i>) |
| Western Toad, California | - (<i>Bufo boreas halophilus</i>) |

Chorus and Cricket Frogs, Treefrogs

- | | |
|------------------|---------------------------|
| Pacific Treefrog | - (<i>Hyla regilla</i>) |
|------------------|---------------------------|

** State Designated Rare and Endangered

True Frogs

- | | |
|-----------------------------|-----------------------------------|
| Red-Legged Frog, Northern | - (<i>Rana aurora aurora</i>) |
| Red-Legged Frog, California | - (<i>Rana aurora draytoni</i>) |
| Cascades Frog | - (<i>Rana cascadae</i>) |
| Bullfrog | - (<i>Rana catesbeiana</i>) |
| Foothill Yellow-Legged Frog | - (<i>Rana boylei</i>) |

Tortoise; Snapping, Pond, Box and Mud Turtles

- | | |
|--------------------------------------|--------------------------------|
| Western Pond Turtle,
Northwestern | - (<i>Clemmys marmorata</i>) |
|--------------------------------------|--------------------------------|

Spiny Lizards

- | | |
|---------------------------------------|---|
| Western Fence Lizard,
Northwestern | - (<i>Sceloporus occidentalis</i>
<i>occidentalis</i>) |
| Western Fence Lizard,
Great Basin | - (<i>Sceloporus occidentalis</i>
<i>biseriatus</i>) |
| Sagebrush lizard,
Northern | - (<i>Sceloporus graciosus</i>
<i>graciosus</i>) |

Tree, Brush, Side-Blotched and Rock Lizards

- | | |
|----------------------------------|--|
| Side-Blotched Lizard
Northern | - (<i>Uta stansburiana</i>
<i>stansburiana</i>) |
|----------------------------------|--|

Horned Lizards

- | | |
|-------------------------------|---|
| Short-Horned Lizard,
Pigmy | - (<i>Phrynosoma douglassi</i>
<i>douglassi</i>) |
|-------------------------------|---|

Skink

- | | |
|---------------|-----------------------------------|
| Western Skink | - (<i>Eumeces skiltonianus</i>) |
|---------------|-----------------------------------|

Whiptails

- | | |
|----------------------------------|--|
| Western Whiptail,
Great Basin | - (<i>Cnemidophorus tigris</i>
<i>tigris</i>) |
| Western Whiptail,
California | - (<i>Cnemidophorus tigris</i>
<i>mundus</i>) |

Alligator and Legless Lizards: Gila Monster

- | | |
|---|--|
| Southern Alligator Lizard,
Oregon | - (<i>Gerrhonotus multi-</i>
<i>carinatus scincicauda</i>) |
| Southern Alligator Lizard,
California | - (<i>Gerrhonotus multi-</i>
<i>carinatus multicarinatus</i>) |
| Northern Alligator Lizard,
Northern | - (<i>Gerrhonotus coeruleus</i>
<i>principis</i>) |
| Northern Alligator Lizard,
San Francisco | - (<i>Gerrhonotus coeruleus</i>
<i>coeruleus</i>) |

Blind and Hognose Snakes; Boas

- | | |
|---------------------|------------------------------------|
| Rubber Boa, Pacific | - (<i>Charina bottae bottae</i>) |
|---------------------|------------------------------------|

Ringneck, leaf-nosed and Sharp-Tailed Snakes

- | | |
|------------------------------|---|
| Ringneck Snake, Northwestern | - (<i>Diadophis punctatus</i>
<i>occidentalis</i>) |
| Sharp-Tailed Snake | - (<i>Contia tenuis</i>) |

Whipsnakes and Racers

- | | |
|-------------------------------|--|
| Striped Racer, California | - (<i>Masticophis lateralis</i>
<i>lateralis</i>) |
| Striped Whipsnake | - (<i>Masticophis taeniatus</i>) |
| Racer, Western Yellow-Bellied | - (<i>Coluber constrictor</i>
<i>mormon</i>) |

Gopher, Glossy, Corn and Rat Snakes

- | | |
|-------------------------------------|---|
| Gopher Snake, Bullsna ^{ke} | - (<i>Pituophis melanoleucus</i>
<i>sayi</i>) |
| Gopher Snake, Great Basin | - (<i>Pituophis melanoleucus</i>
<i>deserticola</i>) |

King, Milk, and Long-nosed Snakes

- | | |
|---|---|
| California Mountain Kingsnake
Sierra | - (<i>Lampropeltis zonata</i>
<i>multicincta</i>) |
| Common Kingsnake, California | - (<i>Lampropeltis getulus</i>
<i>californiae</i>) |

Garter Snakes and Ribbon Snake

- | | |
|-----------------------------|---|
| Common Garter Snake, Valley | - (<i>Thamnophis sirtalis fitchi</i>) |
|-----------------------------|---|

Garter Snakes and Lined Snake

Western Terrestrial Garter Snake, -(Thamnophis elegans
Mountain elegans)

Western Terrestrial Garter Snake, -(Thamnophis elegans
Klamath biscutatus)

Western Aquatic Garter Snake, -(Thamnophis couchi
Oregon hydrophila)

Western Aquatic Garter Snake, -(Thamnophis couchi
Sierra couchi)

Northwestern Garter Snake -(Thamnophis ordinoides)

Black-Headed, Night, and Coral Snakes

Night Snake, California -(Hypsiglena torquata
nuchalata)

Rattlesnakes; Sidewinder

Western Rattlesnake, Northern -(Crotalus viridis
Pacific oreganus)

Western Rattlesnake, Great -(Crotalus viridis
Basin lutosus)

Cold Water Game Fish

Trout:

Arctic Grayling -(Thymallus arcticus)

Brown -(Salmo trutta)

Cutthroat -(Salma clarkii)

Costal (Landlocked) - (Salma clarkii clarkii)

Lahonton - (Salma clarkii henshawi)

Eastern Brook -(Salvelinus fontinalis)

Golden -(Salmo aquabonita)

Rainbow -(Salmo gairdnerii)

Warm Water Game Fish

Large Mouth Black Bass	- (<i>Micropterus salmoides</i>)
Brown Bullhead	- (<i>Ictalurus nebulosus</i>)
Yellow Perch	- (<i>Perca flouescens</i>)
Bluegill Sunfish	- (<i>Lepomis macrochirus</i>)
Green Sunfish	- (<i>Lepomis cyanellun</i>)
Pumpkinseed Sunfish	- (<i>Lepomis gibbosus</i>)

Oceanic and Coldwater Fishes

King Salmon	- (<i>Oncorhynchus tshawytscha</i>)
Silver Salmon	- (<i>Oncorhynchus kisutch</i>)
American Shad	- (<i>Alosa sapidissima</i>)
Steelhead	- (<i>Salmo gairdnerii</i> <i>gairdnerii</i>)
Green Sturgen	- (<i>Acipenser acutirostris</i>)

Non-Game Fishes

Tui Chub	- (<i>Siphateles bicolor</i>)
Klamath Speckled Dace	- (<i>Rhinichthys osulus</i> <i>klamathensis</i>)
Landlocked Lamprey	- (<i>Entosphenus tridentatus</i>)
Pacific Lamprey	- (<i>Entosphenus tridentatus</i>)
Klamath Sculpin	- (<i>Cottus klamathensis</i>)
Riffle Sculpin	- (<i>Cottus gulosus</i>)
Golden Shiners	- (<i>Notemimgonus crysoleucas</i>)
Smallscale Suckers	- (<i>Catostomus rimiculus</i>)
*Largescale Suckers	- (<i>Catostamus snyderi</i>)
**Short Nose Suckers	- (<i>Chasmistes brevirostris</i>)
**Lost River Suckers	- (<i>Deltis luxatus</i>)

*Possible rare species

**State designated rare and endangered

It is impossible within the scope of this report to list all of the species of insects and flowers. Insect species are far too numerous to begin counting. So also with flowers. However, included is a list of 30 plants thought to be rare and/or endangered. The following working definitions have been used in the review process.

A plant is RARE if:

- it exists in only one of a very few restricted localities;

- it occurs in such small numbers that it is seldom seen or collected regardless of its total area;

- it exists only on a type of habitat that is likely to disappear or change for any reason.

A rare plant is ENDANGERED if:

- it is actively threatened with extinction and not likely to survive unless some protective measures are taken.

These plants are listed only by Genus and Species to both avoid confusion with other plants of similar name and to aid interested persons in keying out the plants.

<u>GENUS</u>	<u>SPECIES</u>	<u>GENUS</u>	<u>SPECIES</u>
Agastache*	parvifolia	Eriogonum	hirtellum
Arabis	modesta	Lewisia*	congdonii
Arabis	oregana	Lupinus	tracyi
Arenaria	howellii	Orthocarpus*	pachystachyus
Arnica*	viscosa	Penstemon	cinicola
Calochortus	greenei	Phacelia	cookei
Calochortus**	monanthus	Phacelia	dalesiana
Calochortus	persistens	Phacelia	greenei
Campanula*	shetleri	Pityopus	californicus
Chaenactis	suffrutenscens	Poa	fibrata
Cordylanthus	pallescent	Raillardella	pringlei
Crypthantha	subretusa	Schoenolirion	bracteasum
Eriogonum	alpinum	Tauschia	howfillii
Eriogonum	congdonii	Thelypodium	brachycarpum
Eriogonum	dicinum	Trillium	rivale

* - Not Currently Endangered

** - Possibly Extinct

Bland - Endangered or Safely Uncertain

This vast variety of wildlife is one of Siskiyou County's greatest assets. Care must be taken to preserve, manage and enhance this resource within the county. This can best be accomplished by preserving the natural environments necessary for the species' survival, careful maintenance and sound management of game and non-game species and finally the creation and protection of breeding areas to assure future generations the chance to enjoy this valuable resource.



The following list details all of the minerals presently found in Siskiyou County. Quantities range from microscopic traces to massive deposits. There is presently no commercial extraction of minerals in Siskiyou County, although, with sufficient increase in value, some mines can be reopened.

Within the county are good volcanic by-product and sand and gravel resources. Development of these resources is progressing and supply is good. One source of gravel, mining tailings, should be carefully examined and when possible utilized. This would serve two purposes, first preserving undeveloped resources and second returning disturbed landscapes back to a more natural and potentially productive state.

Finally, great care should be taken to assure that one resource will not be developed at the expense of several others. The quality of air and water, disposal of by-products and primary and secondary effects on wildlife should be carefully monitored to prevent the degradation of these valuable resources.

Minerals of Siskiyou County

Amphiboles
(Actinolite, Hornblende,
Nephrite)

Aragonite

Arsenopyrite

Axinite

Azurite

Barite

Borax

Bornite

Calaverite

Cassiterite

Chalcocite

Chalcopyrite

Chlorite
(Penninite-Kammererite)

Chloritoid

Chromite

Cinnabar

Copper

Covellite

Cristobalite

Epidote

Erythrite

Fayalite

Galena

Garnet
(Uvarovite)

Gold

Gypsum

Hessite

Iddingsite

Mercury

Molybdenite

Opal

Orpiment

Petzite

Platinum

Psilomelane

Pyrite

Pyroxenes
(Hypersthene)

Pyrrhotite

Quartz
(Chaledony-Bloodstone)

Realgar

Rhodochrosite

Rhodonite

Serpentine
(Williamsite)

Smaltite

Spinel
(Picotite)

Sulphur

Talc

Teghroite

Tetradymite

Tetrahedrite

Vesuvianite
(Californite)

Wollastonite

G. Hydrology

This section is concerned with three major aspects of hydrology. All have a primary effect on land use. Groundwater resources, water quality, and flood control remain the most important land use determinants within the county.

Average seasonal runoff, as measured at U.S. Geological Survey gaging stations, is shown below by hydrographic units within Siskiyou County. Total runoff is 5,830,000 acre feet.

Average Seasonal Runoff in Siskiyou County

<u>Hydrographic Unit</u>	<u>Area (sq.mi.)</u>	<u>Runoff (Ac - ft.)</u>
Tulelake	560	73,000
Butte Valley	606	100,000
Klamath River	1860	2,420,000
Shasta Valley	793	160,000
Scott Valley	662	400,000
Salmon River	742	1,263,000
McArthur	532	414,000*
McCloud River	360	615,000*
Dunsmuir	215	385,000*
Total	6,330 sq. mi.	5,830,000 A.F.

* Runoff in Siskiyou County only

A major flood control effort up to this time has been the application of flood plain zoning to

some of the stream areas in the county.

For information concerning water supply and water quality, the reader is referred to the water supply and Sewage Disposal Plan.

Protection and enhancement of the quality of the lakes, rivers and streams in the county will insure the retention of one of the states greatest natural resources.



H. Hazard Areas

Within Siskiyou County there are three basic geologic and hydrologic hazards which are major land use determinants. Because of their basic unstable quality, these hazard lands should often become open space lands by the elimination of development for habitation. The three major hazards are:

1. Seismic Hazards

As indicated on the following map, Siskiyou County has various fault occurrences. The greatest number of faults occur in the eastern third of the county. Seismic Activity has been very slight in Siskiyou County.

2. Landslide Areas

This is an often overlooked natural hazard. Landslides can be quick deadly movements or slow crawling actions. Siskiyou County is a diverse geological conglomerate and has many areas of potential hazard. This is a localized hazard and should not present a major hazard to life or property. It is advisable to investigate questionable areas with the Soil Conservation Service for potential hazards.



PROVISIONAL FAULT MAP OF SISKIYOU COUNTY

- Historically Active Fault
- - - Quaternary Displacement,
Without Historic Record

source:

PROVISIONAL FAULT MAP OF CALIFORNIA
California Division of Mines and Geology

July 1972

3. Flooding Hazards

Flooding is probably the greatest potential natural danger in Siskiyou County. Drained by six great rivers, many major tributaries and uncounted small streams and washes, the dangers of flood in Siskiyou County are usually county wide floods, though the dangers of localized or "Flash Floods" must not be overlooked.

Flood plain zones should be established on the main rivers and streams in the County particularly where there is possibility of urbanized development.

FLOOD HAZARD AREAS OF SISKIYOU COUNTY



source:

FLOOD HAZARD AREAS

State of California

Office of Planning and Research

January 1972



1. FISH, WILDLIFE AND NATURAL HABITAT

Habitat is the key to the survival and well being of all fish and wildlife species. Without appropriate habitat they could not exist naturally. Retention of habitat, therefore, is basic for survival of fish and wildlife.

Development and reclamation projects have a pronounced effect on fish and wildlife. The effects range from entirely detrimental to enhancement. When planning any alteration to the present environment, consideration should be given to the effects on fish and wildlife.

Riparian habitat, viable cold water stream habitat supporting anadromous fishes, and wetland habitat have been greatly reduced in the past and there is a strong possibility of further reduction in the future due to development in these areas.

Siskiyou County has numerous wildlife species, many of which are abundant.



Big Game

Deer- Virtually the entire County supports deer, black-tailed in roughly the western two-thirds of the county and Rocky Mountain mule deer in the eastern one-third.

Highest deer densities of 30 to 60 per square mile are found on winter ranges in the juniper type. Most habitat categories carry deer in densities of 10 to 30 per square mile. Lower densities are found in the coastal forest and agricultural types where 1 to 10 deer per square mile are found. Local agricultural areas may support higher numbers and depredation becomes a problem, particularly on alfalfa fields.

The average buck kill from 1968 to 1972 has been 2,609, the second highest for the entire State. The County is popular with deer hunters. In 1966 the record buck kill was 5,858.

Antelope- The 1972 census showed 320 antelope in Siskiyou County located around Mt. Dome and MacDoel in the juniper and sagebrush types. The animals range occasionally into agricultural areas. The County is third in the State in number of antelope.

Bear- Bear are widespread over the County but are most common in the western part coastal forest and pine-fir-chaparral types. Densities are less than 10 per square mile. In recent years the County has ranked first or second in the State bear kill.

Upland Game- The County is well-supplied with upland game throughout. It is one of four counties with ruffed grouse.

Locally good quail populations, 10 to 50 per 100 acres, are associated with the agricultural type especially along the edges bordering wild lands. The same can be said for doves which are most common in breeding and hunting populations near agriculture.

Sage grouse are found in the County associated with the juniper and sagebrush types in densities of less than 10 per 100 acres.

Locally good pheasant populations occur in the agricultural type, particularly in the Klamath Basin.

Turkish chukars have been released in the County and small populations are showing signs of establishment.

In the State-wide hunting picture, Siskiyou County has been in the first ten in the State in bag of band-tailed pigeons and jackrabbits.

Waterfowl- Siskiyou County is the number one county of the State for breeding and migratory waterfowl. The 57,000 acre Tule-Klamath National Waterfowl habitat for the entire United States. Over five million ducks and geese per year have been known to visit the area during fall and spring migration periods. During the winter freeze-up waterfowl move south into the Central Valley of California and elsewhere. The October 1963, census tallied 1,833,500 ducks, 715,600 geese, and 1,350 swans.

The breeding ground census of 1963 showed 16,564 pairs of nesting ducks for the County and a population of 7,305 Canada geese, young and adults. Most of these are in the Tule Lake - Klamath Basin area. Meiss Lake and White Horse Flat Reservoir are also important migration and nesting areas.

Waterfowl hunting is a major sport in the County. The Tule-Klamath Basin draws hunters from the entire State. The bag of geese is often highest of any county in the State.

Nongame Wildlife- The Tule-Klamath Basin is the outstanding area of the State for observation of water birds.

Major habitat changes are involved in conversion of sagebrush and juniper lands to grassland and agriculture. This could provide a slight reduction in deer numbers. Pheasant populations will probably increase due to increased agriculture.

Siskiyou County has 711.0 miles of cold water streams and an additional 4.5 miles of warm water streams. There are 1,824 acres of coldwater lakes, 2,805 acres of combination reservoirs and 113 acres of warm water reservoirs with an additional 180 acres of unproductive lakes.

, An environment which includes a variety of wildlife life is an enjoyable place for present and future pop-

ulations to live. For some, the presence of wildlife is an enjoyable place for present and future populations to live. For some, the presence of wildlife is the attraction, while others prefer the more arduous activities, such as hunting and fishing.

Fish and wildlife are renewable resources providing that habitat is protected. Present land uses which result in filtration and pollution of streams and lakes should be carefully monitored and if necessary, corrected, to assure a clean and productive habitat.

<u>Habitat Types</u>	<u>1963</u>	<u>% of County Total</u>	<u>1980</u>	<u>% of County Total</u>
Lodgepole pine	180,000	4.5	180,000	4.5
Coastal forest	272,600	6.7	277,600	6.9
Pine-fir-chaparral	1,783,950	44.3	1,779,759	44.1
Hardwood	75,800	1.9	75,800	1.9
Woodland-grass	146,000	3.6	141,712	3.5
Chaparral	555,000	13.7	555,000	13.7
Inland sagebrush	195,000	4.8	170,000	4.2
Juniper	151,313	3.7	85,000	2.1
Grassland	389,348	9.6	394,348	9.8
Agriculture	212,869	5.3	300,470	7.4
Urban-industrial	6,860	0.2	9,860	0.2
Lakes, bays, reservoirs	12,250	0.3	12,250	0.3
Marsh	58,280	1.4	58,280	1.4
Riparian	1,050	trace	1,050	trace
TOTAL	4,040,320	100.00	4,040,320	100.0

J. Forestry

Forestry is one of the major economic activities of Siskiyou County. This is rather self-evident in view of the fact that 83% or 3,373,000 acres is forested land, much of which contains virgin growth. Second growth, as a result of heavy lumbering in the 19th century, is well established and being harvested.

The principle varieties of tree cut are:

Incense Cedar	(<i>Libocedrus decurrens</i>)
Port Orford Cedar	(<i>Chamaecyparis lawson- iane</i>)
Douglas Fir (False Hemlock)	(<i>Pseudotsuga menziesii</i>)
Red Fir	(<i>Abies magnifica</i>)
White Fir	(<i>Abies concolor</i>)
Ponderosa Pine	(<i>Pinus ponderosa</i>)
Sugar Pine	(<i>Pinus lambertiana</i>)

There are also stands of oak, but there is no significant commercial harvesting of hard woods.

Of the 4,040,320 in Siskiyou County, 2,360,000 acres are under the jurisdiction of the Federal or State governments. The principles agencies involved are:

United States Department of Agriculture
Forest Service

United States Department of the Interior
Bureau of Land Management
State of California

Division of Forestry

The lands held in public ownership are used

under a multiple use management program. This allows a maximum use of land resources to a maximum number of interested users within the realm of good management. Most of the lands under public ownership in Siskiyou County are contained within the five national forests within county boundaries:

Klamath	Shasta-Trinity
Modoc	Six Rivers
Rogue River	

The State and Federal governments hire over 400 full time personnel in managing these lands.

Commercial forestry on both public and private lands totals 2,343,000 acres. The economics generated from forestry are vital to Siskiyou County. With 58% of the land of the county in commercial forestry uses, over 33% of the employment of the county can be directly or indirectly related to forestry. It is difficult to establish exactly how many companies and employees are involved in forestry or timber processing. Figures will usually be lower than actual employment. This is due in part to the seasonal nature of some of the work involved and because large diverse corporations often have poor or no breakdowns as to the nature of the work of its employees.

The following data is as of October 1, 1971. The industries are exclusive industries, that is,

they engage in only the business they are listed under. The businesses are all commercial - non-governmental industries.

<u>Business</u>	<u>Employers</u>	<u>Employees</u>
Reforestation	6	7
Logging Contractors	40	466
Saw Mills	17	2,055
Wood Processing Mills	8	294
Hauling, logs and lumber	28	116
Wholesale/Retail sales	<u>8</u>	<u>29</u>
	107	2,967

The following list shows the relation of industries to the economy of the county. All figures areas of April 28, 1972. There were a total of 187 industries compared. The trucking industry, rated 7th has been omitted from the list due to lack of definition of haulage.

<u>Industry</u>	<u>Rank</u>	<u>No. of Employees</u>	<u>% of Employment*</u>
Sawing and Planing Mills	1 st	2,055	24%
Logging	4 th	466	6%
Veneer and Plywood	12 th	129	2%
Mill Work	14 th	<u>122</u>	<u>1%</u>
		2,772	33%

* Figures rounded to nearest whole percent

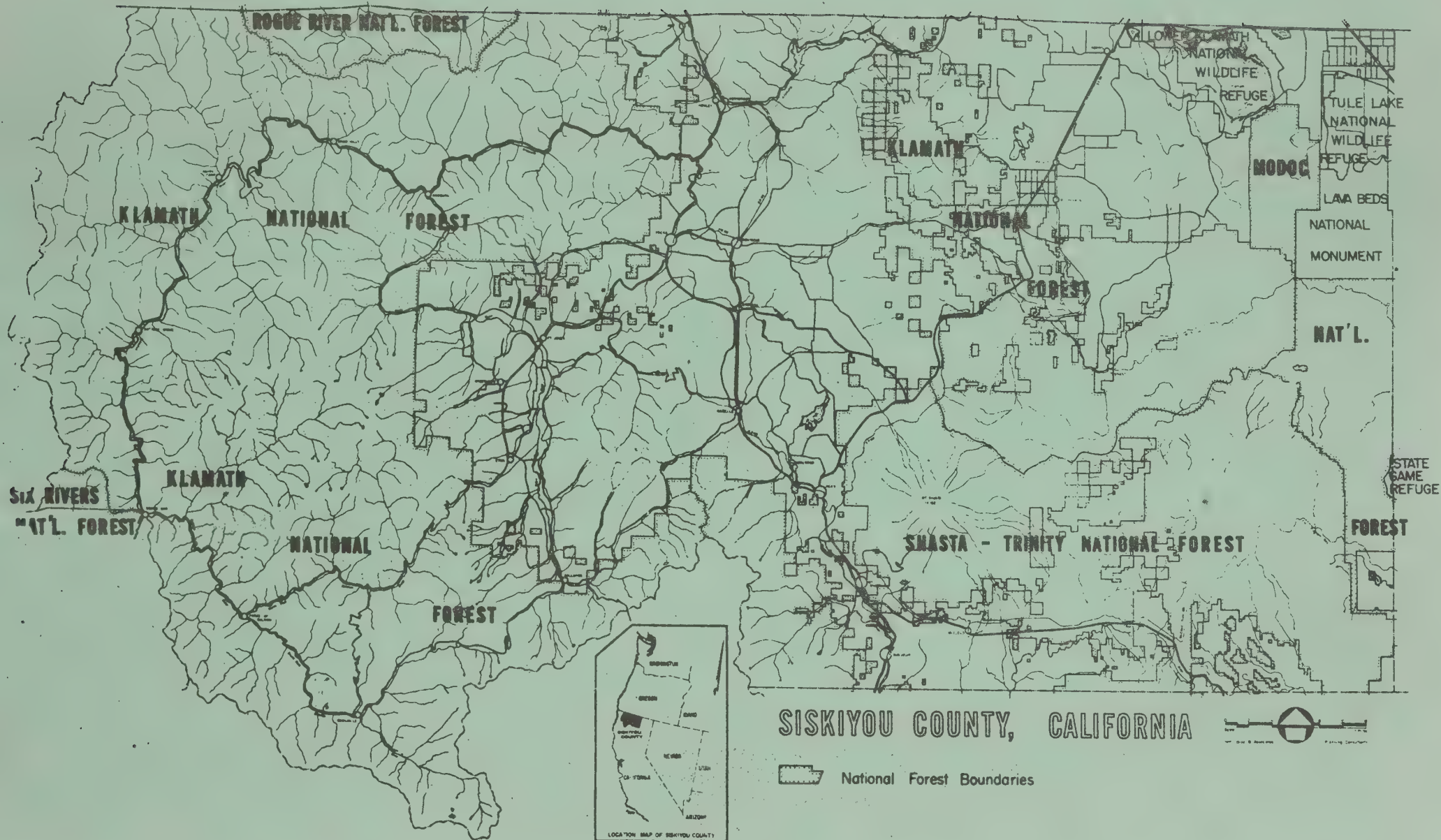
Through the years forestry has undergone many changes. From pure exploitation of an abundant resource to the realization of the

necessity to manage and control a limited, easily restored resource. Most companies now have management programs. This is a multibeneficial endeavor, resulting in trees of better quality and therefore higher value as well as guaranteeing a sustained yield for the future.

With changes in forestry management come changes in lumbering. No longer are many parts of the tree wasted. Today the entire log is processed. Bark is used for fuel or converted into humus or other such products, saw dust is used for production of pressed wood or paper pulp. Trees that are of too low a grade for lumber can be used as plywood material and even the fence posts or short poles.

There is also a small but growing demand for greenery and pinecones, as well as an established Christmas tree industry.

NATIONAL FORESTS



SISKIYOU COUNTY, CALIFORNIA

 National Forest Boundaries



K. Agriculture

Agriculture is a major economic activity within Siskiyou County. Agricultural production is basically divided among the four great valleys within the county; Shasta, Scott, Butte and Tulelake. Of the 4,038,843 acres within Siskiyou County, approximately 808,000 are classified as agricultural. At present there is about 140,000 acres irrigated within the County. Eight irrigation districts provide service to 62,320 acres while the remaining 77,680 acres irrigate from other streams or wells. If development of available water proves economically feasible in the future, and additional 200,000 acres can be put under irrigation. The present approximate breakdown of crops under irrigation is as follows:

pasture - 61,000 Acres	row crops - 11,000 Acres
grain - 40,000 Acres	other hay - 8,000 Acres
alfalfa - 20,000 Acres	

The acreages, total production and total value of the agricultural produce of the county are as follows: (All figures are for 1972 and have been compiled by the Siskiyou County Agricultural Commissioner.)

Field Crops: Acreage, Production, Value

Crop	Production			
	Harvested acreage	Total	Unit	Total
Alfalfa hay	53,900	188,600	Ton	\$6,601,000
Other hay	23,000	69,000	Ton	2,346,000
Barley malting	6,300	12,600	Ton	856,800
Barley feed	21,800	43,600	Ton	2,964,800
Oats	8,000	8,000	Ton	512,000
Pasture irrigated	103,800		Acre	4,982,400
Pasture non-irrigated	130,000		Acre	1,560,000
Pasture range	400,000		Acre	400,000
Pasture stubble	20,000		Acre	30,000
Pasture grain	2,500		Acre	12,500
Rye	2,500	2,500	Ton	112,500
Straw all	5,000	5,000	Ton	90,000
Wheat milling	2,000	3,000	Ton	195,000
Wheat feed	13,000	19,500	Ton	1,365,000
Corn silage	800	21,600	Ton	259,000
Total				\$22,287,000

*Includes native pasture and other seeded pasture which has been shown in previous reports.

Seed Crops: Acreage, Production Value

Crop	<u>Production</u>		Unit	Total
	Harvested acreage	Total		
Alfalfa* (all)	xxx	xxxxxxx	Lb.	\$ xxxxxxx
Barley (all)	2,000	70,000	Cwt.	240,800
Oats (all)	300	7,500	Cwt.	24,000
Potatoes	2,300	713,000	Cwt.	3,565,000
Peas* (field)	xxx	xxxxxxx	Cwt.	xxxxxxx
Rye	400	6,000	Cwt.	15,000
Wheat (milling)	1,200	60,000	Cwt.	211,000
Wheat (feed)	2,500	75,000	Cwt.	264,000
Misc. Seed Crops			Cwt.	33,000
Total				\$4,352,800

*Misc. Seed Crops includes: alfalfa, clover and peas.

Vegetable Crops: Acreage, Production, Value

Crop	<u>Production</u>		Unit	Total
	Harvested acreage	Total		
Dry Onions	200	75,000	Cwt.	\$ 120,000
Potatoes	6,600	2,145,000	Cwt.	6,971,000
Total				\$7,091,000

Livestock: Production and Value

Item	<u>Production</u> No. of head	Total
Bulls	1,164	\$ 445,200
Breeders	323	226,000
Cows	13,862	3,327,000
Calves	3,987	317,400
Feeders (gain basis)	3,200	485,000
Heifers	17,860	3,816,400
Steers	20,665	5,785,500
Sheep	3,000	33,700
Lambs	8,000	214,000
Horses & mules	700	350,000
Misc. poultry & livestock*		95,000
Total		\$15,095,200

* Includes hogs, pigs, rabbits, hens, fryers, eggs, misc. poultry and apiary products.

Livestock and Poultry Products: Production and Value

Item	Production	Unit	Total
Milk (Market)	188,000	Cwt.	\$1,218,200
Milk (Mfg.)	540	Cwt.	2,300
Wool	66,000	Lb.	47,500
Total			\$1,268,000

Inventories of Livestock and Poultry

	Dec. 30 1972
Cattle and calves (all)	85,000
Milk cows 2 years and over	2,700
Cattle on feed	2,000
Dairy heifers on feed	2,000
Sheep and lambs	6,000
Goats	250
Hogs and pigs (all)	1,500
Horses and mules (all)	5,000
Hens and pullets of laying age	10,000

L. Recreation and Park Land

Siskiyou County is recognized as an outstanding area for year round outdoor recreation. The County's forest areas, lakes, streams and parks offer limitless activity to those who enjoy swimming, fishing, boating, hunting, hunting picnicking, scenic excursions or just plain relaxation.

Private recreational facilities play a major role in Siskiyou County leisure time activities. Private recreation provides a combination of active and passive interests; marinas, golf courses, water skiing and many other activities.

Siskiyou County has good resort accommodations. There are many excellent facilities to house the individual visitors and their families who come to Siskiyou County looking for relaxation.

For a detailed report of recreation and park lands in Siskiyou County, the reader is referred to the Recreation Plan, an adopted element of the Siskiyou County General Plan.

GENERAL PLAN

RECREATION

ELEMENT



SISKIYOU COUNTY, CALIFORNIA



M. Inter-relationship of Conservation & Environmental Considerations

All relevant considerations have been summarized in this section of the conservation element. By topic, each component of the natural and human environment has been explored and analyzed in terms of its relationship to conservation and environmental requirements as well as planning open space needs. It is necessary at this point to restate the fact that although each consideration is unique and can be studied independently, they must now be tied into workable systems of conservation and environmental necessities which will result in a functional conservation plan. The following are recommendations and coordinations of these independent solutions put into a Conservation Plan.



IV. CONSERVATION PLAN

This section is composed of all major factors of conservation, all of which link together to form a Conservation Plan. After each factor is discussed, the final Conservation Plan appearing at the end of this section results in a combination of putting the factors into a coordinated Conservation Plan.



A. Forested Lands

Of the 4,040,320 acres of land in Siskiyou County, 3,373,000 acres is in forest lands, of which 2,343,400 acres or 58% of the county's area is commercial forest land. Siskiyou County's mountains are covered with dense stands of ponderosa and sugar pines, douglas and white firs, and incense cedar. The lumber industry contributes greatly to the economy and employs over 2,000 workers.

Siskiyou County has approximately 27 billion board feet of merchantable timber in both private and public holdings. From this reserve, approximately 325 million board feet are harvested annually and processed into lumber at various mills both within, and out of the county. New markets are making possible utilization of various species such as lodgepole pine, a species that has heretofore been considered a weed tree or of low value.

Other forest products such as Christmas trees, pine cones and greenery are minor but important timber products.

A total of 2,360,000 acres are under the jurisdiction of the federal or state governments. Of this, 1,600,000 acres are commercial forest, operated under a management system by the Forest Services. The balance is reserved as open space or permanent forest.

Objective:

Preserve, protect and manage the Forest Lands as both a natural wild habitat and a productive economic resource.

Recommendation:

1. Forest land, wherever possible, should be separated from other uses, and only those uses related to and compatible with sound forestry practices should be allowed within or located on Forest land.
2. Forest land should be encouraged as a means of providing open space and conserving other natural resources.
3. Forest lands not considered as prime forest land should be improved as commercial timberland, preserved as open space and wildlife habitat.
4. Forest lands must be recognized as a resource in its own right as well as a protector of many other resources and as such must be permanently and exclusively reserved.
5. Forest lands not presently zoned should be zoned Agricultural - Forestry.
6. Encourage private timber holders to engage in active timber management programs.

B. Agricultural Lands

The agricultural lands of the county occupy 20% of the total land in the County. However, seed, vegetable, field crops excluding pasture land occupy only 3.8% of the county area. Approximately 140,000 acres of farm land is irrigated. Agriculture is the second greatest source of income. Not only is agriculture important to the county, but to the State and the Nation.

The income from agriculture in 1972 was \$50,313,000 which is an increase of \$8,248,500 over the 1971 figure.

The only prime soils in the county are capability Class II soils which are good cultivable lands, but do have minor problems of erosion, drainage, slope or texture as well as climatic problems. This land resource is not a readily renewable resource and must be protected for its present and future value to the people of the county and state.

A continuing increase in population, second home development, highways and other urban uses is a continuing threat to the retention of agricultural land for agricultural purposes. With the advent of second home development, and tourist oriented facilities, the safeguarding of agricultural lands is as essential as the protection afforded other types of land use.



LAND CONSERVATION ACT CONTRACTS
1972

- Land Under Contract
- Prime Land Under Contract

SISKIYOU COUNTY
CALIFORNIA

1971

SISKIYOU

Objective:

Preserve and protect the prime and productive agricultural lands and the agricultural economy of Siskiyou County.

Recommendation:

1. Prime agricultural land, wherever possible, should be separated and protected from other uses, and only those uses related to agriculture should be located on prime agricultural lands.
2. Agricultural uses should be encouraged as a means of providing open space and conserving prime land.
3. Agricultural lands which are used for grazing and other purposes although not considered prime soils, yet highly productive, should be given equal protection.
4. Prime agriculture land must be recognized as an equal to other major land uses and given the protection it deserves as a developed use and must be permanently and exclusively reserved and recognized as its highest use in both public and private interests.

C. Recreational Land

Recreation, in Siskiyou County, runs the complete gamut - from the local neighborhood playground, to major regional parks and campgrounds, drawing visitors from the entire state. The scenic beauty of Siskiyou County must be guarded. The county has been fortunate in its many natural attributes - its scenic shorelines along its many lakes and the rivers and streams in the county ranging from lakefront beaches to rugged mountain streams. The county is fortunate too that over 63% of these lands are owned and controlled by the government, most of which is open to the public for a vast variety of recreational purposes. These open space lands meet a great variety of public outdoor recreational need from picnicking in the various federal and state camping areas or on the shores of lakes to camping in the forest lands in the National Forests to fishing on the lakes or in the streams or hunting in the mountain areas. Whatever the outdoor recreational needs, Siskiyou County has the open space for it; the largest concern is expansion of facilities for recreationists in that open space.

More parks, campsites, picnic areas and other forms of recreational facilities will be required, not only to satisfy increasing population but also the increasing amount of leisure time and the influence of tourists.

Increasing care must be taken to retain the natural beauty of Siskiyou County. All proposed recreational facilities will be carefully implemented to allow maximum use without damage to the environment so that future generations will be able to enjoy existing amenities.

Objective:

To reserve land for recreational facilities, encourage private recreational development and other open uses in categories characteristic and beneficial to the present and future residents of Siskiyou County as well as to meet tourists needs today and in the future.

Recommendations:

1. Provide for the orderly development and control of a comprehensive recreation system for Siskiyou County.
2. Recreational resources should be protected for the future as these resources are largely irreplaceable natural assets.
3. Encourage or provide recreational facilities and other open uses in central

locations near all living and working areas in areas of outstanding beauty sufficient to meet the varying needs of the people.

4. Encourage proper commercial recreation uses to augment public recreational programs.
5. Sites for recreation should be evaluated to assure they have maximum flexibility and adaptability to the constantly changing recreation needs and interests.
6. The development of waterfront property should be encouraged for all suitable types of recreational uses to meet the needs of local, regional, statewide residents.
7. The river areas which provide the best recreational attraction should be preserved.
8. Recreation areas should take advantage of multipurpose lands, such as reservoirs, flood plains and forest lands.
9. Encourage the development of a system of scenic highways by establishing special architectural sites and landscape control in a visual line control,

thereby preserving areas, of outstanding scenic quality.

10. Provisions should be made for adequate number of campsites, picnic areas, overnight camping facilities, scenic turnouts and roadside rests.
11. Provisions should be made for riding, hiking and bicycle trails on local as well as statewide programs.
12. To meet the demands of future populations advantage should be taken of the perspective areas of sufficient size and locations for parks, and other similar uses in proper locations. A minimum standard should be set for the amount and quality of land devoted to recreation.
13. The continuing development of major recreational facilities to serve regional and statewide residents should be encouraged on public lands throughout the county including Federal, State and County.
14. The development of major recreational and other related uses should be provided for by private enterprise, and at all governmental levels including the City, County and Federal agencies.
15. Encourage private recreational development as a major supplement to public recreation facilities.

D. Wildlife Habitat

An environment which includes a variety of wildlife is an enjoyable place for people to live. Unfortunately many animals have become selected as endangered species due to people; the invasion of development into wildlife habitat is, of course, the source of the problem. As their natural habitat is encroached upon, animals are confined to smaller and smaller areas. Preservation of habitat is the key to the maintenance and well being of all fish and wildlife species.

Siskiyou County has numerous wildlife species, most of which are still abundant. Federal, State and County owned open space land assure the continued natural habitat in these public areas. Control of access to prohibition of vehicles in the mountain and wilderness areas preserves the natural environment necessary for wildlife to exist.

Objective:

To preserve and maintain streams, lakes and forest open space as a means of providing natural habitat for species of wildlife.

Recommendations:

1. To maintain all species of fish and wildlife for their intrinsic and ecological values

as well as for their direct benefit to people.

2. To provide for diversified recreational use of fish and wildlife.
3. Provide for an economic contribution of fish and wildlife in the best interest of the present and future populations.
4. Provide for scientific and educational use of fish and wildlife.
5. When planning any alteration to the present environment or habitat, consideration should be given to the effects on fish and wildlife.
6. Present land uses which result in siltation or pollution of inland waters should be carefully monitored, and if necessary, corrected to assure clean and productive habitat.
7. Outstanding wildlife habitats and sites that have unusually high value for fish and wildlife should be carefully considered before any development altering this environment is permitted.
8. Encourage development and enhancement of wildlife habitat through careful use of methods such as controlled

burning, planting, judicious livestock grazing, mechanical land manipulation and creation of ponds in water courses.

9. Recognize and encourage the various appropriate and non-appropriate uses of wildlife. This includes such activities as scientific studies, educational purposes, and hunting and fishing.
10. Retain and develop access to public areas through riding (non-motorized) and hiking trails.

E. Natural Resource Lands

The primary resources in Siskiyou County are Forestry and Agriculture. These resources extend in value far beyond the financial value of production. Open space, wildlife habitat and scenic beauty, while impossible to place a monetary value upon, are a valuable and necessary resource.

Also of importance are non-productive or minimally productive lands. Many of these lands have mines which could be reopened and placed into production. Yet the often unseen value is as a wildlife habitat.

The county also contains many natural geologic features which provide scenic interest and are a great attraction to tourists. Conservation of

these natural resources is necessary to continue to attract visitors to Siskiyou County.

Objective:

Protect the scenic natural resources of Siskiyou County and preserve areas which are important as commercial natural resources for future generations.

Recommendations:

1. To preserve areas of natural scenic beauty as areas of active and passive recreation.
2. Continue to promote a program of agricultural land preservation to assure adequate food supply for the future.
3. Maintain prime forest lands in timber production under multiple use concept. Recreation and subdivision development of forest lands should be carried out in an orderly manner with high standards for environmental protection.

F. Archaeology

"The Legislature hereby finds and declares that California's archaeological, paleontological, and historical heritage is fast disappearing as a result of public and private land development...."

(5097.9 Public Resources Code, State of California)

With this statement, the Legislature has recognized the importance of the preservation, proper excavation and controlled development of the Archaeological, Paleontological, and historic sites in the State.

Siskiyou County has a wealth of Archaeological history within its' borders. Era's spanned range from the time of pre-Historic Mammoths to the site of the Modoc Indian War in the 1870's in the Lava Bed National Monument. There may be many other sites of importance within the county. The following account of the discovery of the Mastodon remains may give guidance to planning decisions concerning the development of this resource.

NEWSPAPER ACCOUNT

from "The Siskiyou Times" published in Yreka, California, Tuesday, February 11, 1930.

COPY

POSSIBILITIES OF PREHISTORIC EXCAVATIONS IN SISKIYOU TOLD

Fossils Already Unearthed by Chance Indicate Wealth of Hidden Material. by Mr. J. A. Denny.

"In a four foot wooden chest at Montague is a collection of prehistoric bones that have an enlightening history. They are part of the skeleton of a mastodon, a mammoth animal that roamed through our valley long before the advent of man, in the period known as the Pleistocene age.

This collection has been preserved through the interest of Mrs. H. W. Smith for fifty years. Keeping the relics so long has been no easy matter for few people have realized

their value. Mrs. Smith, however with her scientific turn of mind has taken great pride in them, and keeps them at the home of her daughter, Mrs. Emory Parshall, with whom she lives at Montague. She has been interviewed regarding them by a collector from the Smithsonian Institute who wants them for the museum at Washington, but because of sentiment or loyalty to her home place she refuses to part with them.

They were found in 1886, two miles west of Hilt by her husband who discovered them while working in his gold mine on Cottonwood Creek, fifty-five feet under ground. At least five skeletons were found. Eight large ivory tusks, discolored and cracked by the ages were exhumed, and several wagon loads of fossils were dug up and packed away. Could these remains have been reconstructed, Siskiyou might have had a marvelous museum, for whatever preservative quality the soil has is likely to have kept other fossils than those of the mastodon intact.

As the bones crumbled on exposure to the air, Mr. and Mrs. Smith resourcefully painted them with several coats of glue. The tusk in their collection measured sixty inches in length and was seven inches in diameter. The relics include the tusk, part of a jawbone, one vertebrae measuring twelve inches across, some smaller vertebrae, two teeth, parts of ribs, a hip socket, part of a knee, and bones of the lower leg.

The teeth saved are of especial interest as it is said to be through them that scientists distinguish between the mastodon and the giant elephant which lived in a later period. The teeth of the latter are formed of upright platelike folds of enamel with a cement-like substance in the interstices, while those of the mastodon show grinders whose surface is marked by cusps. The cusps are very marked in the Smith collection. Mrs. Smith has a petrofied ammonite, about twelve inches in diameter, saved from the same excavation.

Shasta Valley seems to have been a favorite stamping ground, for a huge tooth of one of the mammoth animals was found by Miss Laura Prather in 1887 in the Oregon Slough a mile north of the station at Montague. It was broken in two parts when discovered. One piece was kept in the Dr. Ream collection, and the other sent to the University for identification.

These relics were found to the north of Mount Shasta, but an interesting find was also made west of the mountain in Scott Valley. This was the entire skeleton of what is believed to be the giant elephant, supposed to have stood fourteen feet in height.

It was unearthed thirty years ago by William Taylor while mining near Callahans. The remains were thirty feet below the surface imbedded in porphyry. The skeleton was upright and intact when found, but soon crumbled on being exposed. The tooth, which is a fine specimen of upright folds of enamel measured ten inches through the diagonal and is kept at the Etna library.

What was lost to students of anthropology in the disposal of the wagonloads of fossils will never be known, but the five

skeletons at least show the former presence of a herd of mastodons.

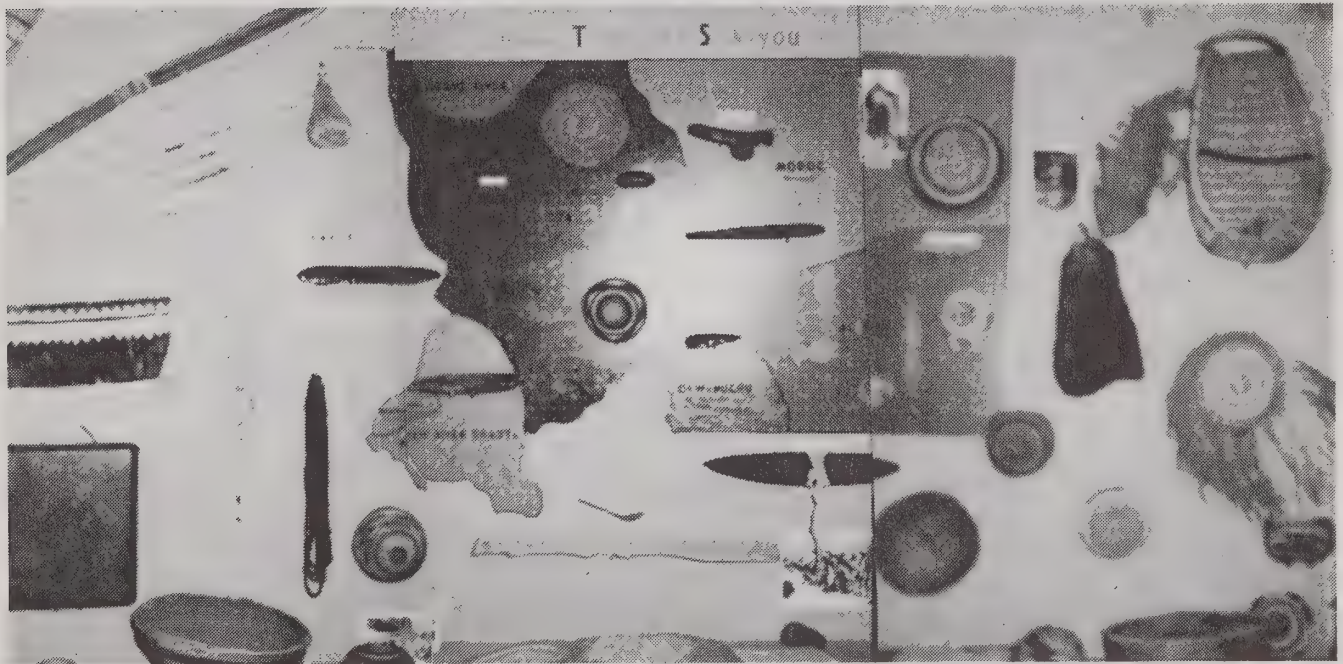
As these relics were exhumed simply by chance it is possible that others may be found. Los Angeles never loses an opportunity to give publicity to its county. The fossil remains found there in the tar pits have been reconstructed and thousands visit the museum to see them.

Can we of Siskiyou afford to be less alert? If other strange fossils are uncovered it is hoped that they may be reported and an effort made toward having them classified."



"MASTODON JAWBONE"

The University of Oregon excavation site, now inundated behind the Irongate Dam, is an excellent example of how a site can be properly developed before it is lost to vandals, or in this case, rising water.



Section 5097.5 of the California Public Resources Code reads in part, "No person shall knowingly and willfully excavate upon or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds archaeological or paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands,

except with the express permission of the public agency having jurisdiction over such lands.... As used in this Section, 'Public Lands' means lands owned by, or under the Jurisdiction of, the State, or any city, county, district, authority or public corporation, or any agency thereof."

Objective: Preserve, protect and develop the county's Archaeological, Paleontological and Historic as well as Geologic sites.

Recommendation:

1. Siskiyou County strictly enforce the State Laws prohibiting the unauthorized excavation of artifacts on all lands under its jurisdiction.
2. Scientific excavation should be encouraged and directed to the Siskiyou County Museum or Historical Society for guidance and to assure the proper excavation, cataloging and documentation procedures are followed to assure the validity and authenticity of any and all finds.

G. Scenic Lands

In Siskiyou County, the entire county is considered as scenic land. Whether it is the agricultural lands, the mountainous areas, its many lakes and streams, and of course its majestic Mount Shasta, Siskiyou County provides a tremendous variety of scenic interests. Although approximately 2,500,000 acres of this scenic land are preserved by various public agencies for recreational purposes, many other parts of the county must be protected to retain its scenic beauty.

California's highways in Siskiyou County should be designated as scenic highways in the State of California. The areas which these highways bisect are of great scenic interest, for the most part, and should be protected by zoning regulations controlling setbacks and setting building restrictions to retain the natural beauty along these highways to the greatest possible extent.

The five National Forests are a scenic asset of great value. As mentioned in other parts of this report, they serve as a natural habitat for many species of wildlife; as recreational area for thousands of people a year, and provide the county with a major portion of its watershed and water conservation resource. Many of the hundreds

of campsites are located within the National Forests located along the creeks and streams, as well as at many of the lakes.

The County Board of Supervisors and the Planning Commission have adopted zoning and subdivision regulations designed to preserve the beauty and quality of environment in Siskiyou County. Building and grading regulations have also helped to retain the County's scenic beauty. Policies in regard to landscaping of cut and fill slopes for road and highway construction and building pads have been adopted and used. The need of requiring planning of cut and fill slopes and hillside building construction is recognized but further regulations and enforcement for this type of maintenance must be adopted.

Objective:

To conserve, preserve and maintain the scenic lands of Siskiyou County.

Recommendations:

1. Continue to work for the conservation of Siskiyou County's scenic beauty.
2. Develop plans for acceptance of state highways as Official State Scenic Highways and county roads as Official County Scenic Roads.

3. Encourage private developers utilize conservation methods of using the land. Discourage development on steep slopes unless special techniques of construction are used.
4. Develop and apply zoning and building regulations designed to preserve the scenic areas of the county.
5. Protect agricultural lands as a major open space resource.
6. Encourage private reforestation of hillsides to enhance the beauty of the county.
7. Adopt regulations requiring the landscaping and maintenance of vegetation on all cut and slope fills.
8. Prohibit encroachment of excessive cut and fill slopes into corridors along scenic highways.

H. Watershed and Water Recharge Lands

Water is one of mans greatest needs. Sufficient water of high quality is essential for survival. Rather than condense and ~~destroy~~ the value of a well researched, well written document, readers are referred to the "Water Supply and Sewage Disposal" element of the Siskiyou County General Plan. This is a three volume document which thoroughly covers the waters of Siskiyou County.

Care must be taken to keep the present supply of usable water at a quality which is safe for human use and free from long range pollutants. Every effort must be made to keep agricultural runoffs, industrial and human waste from lowering the water quality below permissible standards.

Objective:

To preserve the quality of the existing water supply in Siskiyou County and adequately plan for the expansion and retention of valuable water supplies for future generations and to provide for a comprehensive program for sustained multiple use of watershed lands through reduction of fire hazards, erosion control and typeconversion of vegetation where desirable and feasible.

Recommendations:

1. Provide for the safety and welfare of the residents of the county by flood control efforts on a regional scale.
2. Continue to assure the high quality of water within the county with management programs for agricultural waters and emphasizing programs which stop intrusion of agricultural waste into the water supply.
3. Every precaution must be maintained to eliminate the danger of any pollution to the streams and lakes as well as recharge areas through human and industrial waste and agricultural runoff.
4. Continue a program research into the future water demands of Siskiyou County to establish the need for any future facilities.
5. Promote a plan for future expansion of water storage reservoirs to be utilized as water supply as well as recreation.
6. Utilize latest scientific techniques towards reclamation and recycling of

Waste water.

7. Use of watershed or recharge lands for urban or second home purposes should be permitted only under rigid controls.

1. The Plan

The foregoing sections are general discussions of the various facets of the Conservation Plan. Each are combined in broad categories in the Conservation Plan for Siskiyou County. This Plan as well as the texts and maps comprising the conservation element is only one part of the Siskiyou County General Plan and should be considered in relation to the open space element and the other elements of the General Plan.

Although this element of the General Plan is to discuss conservation, it recognizes that areas must be set aside for human settlement consistent with realistic growth projections.

Adequate land has been set aside for urban expansion, including residential, commercial and industrial growth and steps have been taken to direct this growth to some extent. Adequate conservation practices must be used in all development of urban areas.

Easements and rights-of-ways for public utilities, power transmissions, and transportation are necessary for future population, but

their intrusion on natural landscape should be held to a minimum and good conservation practices must be observed.

The Conservation Plan in the county can only be achieved by complete cooperation by all levels of government. There is a great need to devise over-all environmental management goals for the county and the cities, by both short and long term policy and positive actions at all levels of government and the private sector. It is essential to develop goals which will include conservation practices which have meaning for the people of the county and which include larger regional, state-wide and national interests. The role of the county is to coordinate with those branches of the State and Federal governments operating within the county and to require top conservation practices from the private sector. The attainment of good conservation practices and environmental management objectives will depend in most cases on the degree to which the county is able to influence the activities of the private sector; since it is not feasible or desirable to have all lands which are significant for conservation and environmental resources management in public ownership.

The Conservation Plan in the county may be implemented in many different ways. Some methods are included in the Open Space Plan which include

scenic easement agreements, open space agreements and agriculture preserves, as well as outright dedication of lands for open space or recreational use. The U.S. Forest Service and the State Division of Forestry practice sound conservation and environmental management as well as providing broad expanses of open space for public enjoyment. Both the County and the Cities have a great responsibility to use sound conservation practices in all public work projects and encourage the private sector to likewise respect the environment.

Recreation development, second home development or extension of urban areas must be guided in several directions.

It is necessary to:

1. Protect the physical environment, which now means that we must return it to its natural state insofar as possible and practical;
2. Reduce the threat to life and property by geologic hazards;
3. Insure the most effective and beneficial use of land and its natural resources;
4. Prevent pollution of water, air and land;
5. Reserve area for conservation and

- development of the natural resources;
6. Reserve prime agricultural lands for continued use in that category;
 7. Reserve land with scenic beauty; and
 8. Recognize the great advantages to be derived from our natural environment.

Objectives:

1. Retain the character and natural beauty of Siskiyou County by sound conservation practices.
2. Retain agricultural lands for its prime purpose.
3. Protect and conserve natural areas worthy of special consideration.
4. To plan for mineral production and performance so as to avoid destruction, pollution, or degradation of surrounding land and of water and air resources. After mineral extraction has been completed, land used for mineral production should be re-vegetated and restored to its original site condition.
5. To provide a comprehensive program to sustain multiple use of watershed lands through reduction of fire hazards, erosion control of burned over lands, and type conversion of

vegetation where desirable and feasible. Use for urban or second home purposes should be permitted only under rigid controls.

6. To identify all geologic and soil hazards areas and develop standards for restricted development of these areas.
7. Adopt a policy to prevent encroachment of development into unprotected flood areas or flood plains, and insure their continued use for agriculture, recreation, or wildlife habitat.
8. To encourage recreational facilities which will provide open space at all governmental levels.
9. To encourage both the Federal and State government to retain open space in national forests, state forests and Bureau of Land Management areas.

A Conservation Plan is illustrative only and it is obvious that there are overlapping interests in the various designations shown. It is also obvious that the Conservation Plan and the Open Space Plan are inter-dependent. The plan illustrates those areas which are presently under management of the various governmental agencies as well as private lands under special categories. These and other details were

more completely discussed throughout the text.

V. IMPLEMENTATION OF THE CONSERVATION PLAN

A. Need for Conservation Plan Implementation

Emphasis has been made throughout this report of the great benefits that can be gained from a vital and active conservation and environmental program. A plan for conservation and environmental management will remain just a paper plan unless there is a willingness to make the plan work in both the public and private sector.

The following statements highlight some of the current practical methods, of the effectuating conservation plan which should be carefully evaluated as to the practicality program. Other methods should be carefully considered and utilized.

B. Implementation of the Conservation Plan and Results

The following methods have been attempted and found to be quite successful, if implemented with good conservation practices and environmental management. It is recommended that these be continued and enlarged.

1. County Zoning and Subdivision Regulations, General

These two forms of regulatory mechanisms give the County and Citys the power to promote the public health, safety, morals and general welfare. The powers are essentially the result of the realization of the importance of the whole community's rights being

more valuable than the right of an individual in doing what he wishes with his land. Zoning and subdivision regulations are the primary methods of determining what and how the land may be used.

a. Zoning Regulations

(1) Exclusive Agricultural Zoning

Since 1967 the county has been engaged in an effort to protect its highly productive land through an exclusive agriculture program which has been calculated as an implementation of the county's total planning program. It continues to be county's position that agricultural zoning must continue to play an important role in the protection of agricultural lands. This, backed by firm policy, can be an effective tool which cannot be overlooked in accomplishing the desired goals set forth in the open space element.

(2) Flood Plain Zoning

Flood plain zoning is a necessary provision to assure permanent open

water channel in flood prone areas.

As a result of strict flood plain regulations for building, open space is virtually assured.

Results - Siskiyou County has adopted flood plain zoning regulations which have been applied to Scott Valley.

b. Subdivision Regulations

1. Subdivision regulations help to guide the development of land which is not yet a part of the urbanizing pattern. Specific subdivision regulations effectively guide development by the control and placement of transportation systems and utilities where they do the least damage to the environment. The regulations can also require open space and recreation lands to be set aside as part of the development. The regulations can also provide for the protection of valuable wildlife habitat whether in water areas or on land.

The County Subdivision Ordinance adopted in 1971 has adequate provisions to allow good conservation practices and environmental management.

Results - The county is requiring new development to provide for either private

recreation facilities held in common or open space land held either for the benefit of the persons in the development or dedicated to the public. The County is also requiring development to protect wildlife habitat and other unusual scenic areas which are for the benefit of the public as a whole.

2. Land Preserves with Tax Incentives

The Land Conservation Act of 1965 (Williamson Act) establishes that property tax incentive to private land owners who agree, by contract, to keep their land in agricultural use for 10 years. After the contract is signed with the county involved, the property owner agrees to keep his land in agricultural use and is taxed on the income from his property and not the speculative market value of that land. This enables the property owner to resist the pressures of premature development through high tax rates.

Briefly stated, the basic reason behind the Conservation Act is to reduce urban sprawl, premature development of agricultural land and thus protecting the

agricultural economy.

Its fundamental long range benefits would include a reduced need for schools, roads, utilities and particularly governmental services that uncontrolled sprawl inevitably brings. Most important, of course, is the great amount of productive open space that is provided.

It is necessary, however, to point out that to be successful the implementation of this program must be based on community and county goals for the preservation of agricultural and open space land.

Results -

Although a variety of open space land is worthy of protection, such as crop land, scenic land, scenic corridors, grazing land and watershed areas, the county feels that only agricultural land or productive crop and grazing land should be considered in regards to establishing agricultural preserves.

Contracts shall be executed for a minimum ten year period and shall automatically be extended at the end of each year.

3. Scenic Easements

Section 51050 of the California Government Code establishes that "any city or county which has adopted a general plan may accept grants of open space easements or open space agreements on privately owned land lying with the city or county."

The purpose of such easements is for the preservation of land as open space in the best interest of the state, city or county and is important to the public for the enjoyment of scenic beauty, for the use of natural resources, for recreation, or for the production of food or fiber and specifically that its potential is for future generations.

The State presently has an open space reimbursement program (Section 14112, Open Space Subvention Act). The county should investigate this program and determine the best way to proceed in initiating open space agreements within the county.

Results - The Planning Commission is currently considering the requirement of dedications of scenic easements along county roads designated as scenic county roads. The following guidelines are suggested for

review and acceptance of scenic easements:

- a. A substantial portion of the property must be within sight of a public road, park or other significant open space which is in the ownership of the State, County or other public agency.
- b. Its relationship to adjacent parcels under scenic easement should be considered and its proximity to other areas of scenic community value should be determined.
- c. The impact of reduced tax revenue on the county should be evaluated.
- d. The land must have true scenic beauty to have some community value.
- e. The compatibility of the parcel with the general plan should be evaluated.
- f. The possibility of any portion of scenic easement land being required for County or State highway purposes or for any other purpose that might require condemnation.
- g. Compatible uses that may be allowed on scenic easement lands. Uses that may be considered are those that will not mar the landscape, such as cattle grazing or riding and hiking trails.

Where scenic easements are accepted they shall be:

1. Dedicated for a period of not less than ten (10) years and shall be irrevocable during that period. They shall be automatically extended at the end of each year.
2. Existing dwelling units on the property must be removed from scenic easement boundaries.

C. Other Conservation Implementation Possibilities

1. Public Ownership

In Siskiyou County 63% of the County's land area is owned by governmental agencies.

These jurisdictions should continue to acquire those lands which are significant to each one's level of responsibility. If it is really the intent to preserve open space, there must be a total mobilization of effort by all agencies and all levels of government. For only through the pooling of concentrated action can we hope to be effective.

Results - The county has a consistent policy of requiring either public open space or common areas dedicated for recreation or open space development.

There are many trailer camps, campgrounds and picnic areas in the National Forests. These range from trailer camps, to campgrounds, combination trailer and

campgrounds, picnic areas and hunting areas throughout the special areas in the national Forests.

2. Soil Conservation, U.S Department of Agriculture

In Siskiyou County the representative of the Soil Conservation Service sits with the Technical Committee in an advisory capacity to advise in the field of soil, water and natural resource conservation. The Soil Conservation Service supplies basic soils information with field maps in areas where field surveys have been completed.

Soils survey information can and should be used as a basis of all types of land use planning. Since there are many types of soil that react differently under varying conditions, treatment required to protect and properly use them differs from soil to soil.

Soils survey prepared by the Agency, with interpretive tables can be used by health officials for approval of sewage systems and by engineers and designers for approval of land fills and as an indicator of soil problems from the standpoint of footings, slip problems, flood proneness and other related soil conservation service.

The Soil Conservation Service provides technical assistance to the Planning Commission on conservation practices, in the application of these practices as the basis for sound land use and to eliminate as much as possible erosion, sedimentation and dust if the soils are not properly treated or planted.

Soil Conservation Service feels that proper land use management and planning is one of the best ingredients to improve the quality of the environment.

Some of the areas of environmental concern in which the Soil Conservation Service can provide technical assistance in Siskiyou County include: Review of county construction plans, assisting with roadside and highway plantings, giving technical assistance in soil and water conservation; assistance to schools in conservation planning for outdoor classrooms; aiding the Cities and County to develop broadbased open spaced land use plans.

3. Environmental Impacts

It is the responsibility of the Planning Commission and legislative bodies of the County and of the City to exert control

over public works projects and private development in controlling the following:

- (1) Erosion and sedimentation,
- (2) Vegetative cover,
- (3) Pollution of water, air and land,
- (4) Loss of fish and wildlife habitat,
- (5) Diminished surface water,
- (6) Reduced ground water recharge,
- (7) Reduced storage capacities in reservoirs,
- (8) Increased flood hazards,
- (9) Diminished cover and timber lands,
- (10) Diminished prime agricultural lands,
- (11) Eliminate or reduce possible fire hazards,
- (12) Plant communities,
- (13) Separate access to public lands, streams and lakes.

Major Factors of Urbanizing Which Cause Environmental Impacts

1. Removal or damage of vegetation on construction sites.
2. Grading of land for homesites, roads and utilities.
3. Alteration of natural drainage patterns.
4. Creation of impervious surfaces by construction of roads and homes.
5. Pre-emption of land use.
6. Introduction of people and vehicles.
7. Disposal of liquid and solid waste.

There can be beneficial environmental impacts. They may be achieved through proper planning and design of urban development. They will lead to plans and designs that can reduce flood, and erosion hazards, minimize reduction or disturbance of wildlife and increase recreational opportunities and most of all conserve the natural resources of the county.

As new legislation is approved it will be incorporated into the plan. New laws such as the Wild River Act and similar legislation, become part of the conservation process and therefore part of this plan.

References:

Siskiyou County General Plan

Land Use, Recreation, Water Supply and Sewage Disposal

Siskiyou County Overall Economic Development Plan

Conservation Element - Lake County

General Soil Map - Siskiyou County - Soil Conservation Service U.S. Dept. of Agriculture

Geology Hazard Area Map - Faults - California Division of Mines and Geology

Geology Hazard Area Map - Floods - Governor's Office - Office of Planning and Research

Agricultural Preserve Map - Siskiyou County Assessor's Office

Minerals of California - Bulletin #173, 1956; Bulletin #189, 1966; California Division of Mines and Geology

A Field Guide to Western Reptiles and Amphibians, Robert c. Stebbins, 1966.

Furbearing Mammals of California, Grinnel, Dirox and Lindale.

Mammals of California, Lloyd G. Ingles

A Field Guide to the Mammals, Burt and Grossenheider

A Field Guide to Western Birds, Peterson

A Guide to Field Identification, Birds of North America Robbins Brunn and Zim

Furbearers of California, George Seymour

Upland Game of California, Robert Mallette

Big Game of California, W.P. Dasmann

Bats, Glover Monill Allen

The Ducks, Geese and Swans of North America, F.K. Kortright

Birds of America, National Association of Audubon Societies

Waterfowl of California, F. Kazlik

Acknowledgements

United States Government

Department of Agriculture

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Soil Conservation Service

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The Resources Agency

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Division of Forestry

Division of Mines and Geology

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Office of Planning and Research

Department of Human Resources Development

Siskiyou County Assessor

Siskiyou County Agricultural Commissioner

Siskiyou County Air Pollution Control District

Siskiyou County Department of Public Works

Siskiyou County Museum

University of California

Agricultural Extension

Farm Advisor

California Native Plant Society

Siskiyou County Chamber of Commerce

National Audubon Society - Mt. Shasta Chapter

U.S. Fish and Wildlife Service - Tulelake Refuge

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